RC
660
A1
A5214
Index

The Journal of the American Diabetes Association

diabetes

Volume 18 • 1969

SD9

RECEIVED
APR 15 1970
THE LIBRARY
KANSAS STATE UNIVERSITY

INDEX

By Subject and Author

Copyright 1970, by American Diabetes Association, Inc.

DIABETES®

The Journal of the American Diabetes Association

EDITOR, HARVEY C. KNOWLES, JR., M.D., *Cincinnati*

ASSOCIATE EDITORS: DAVID M. KIPNIS, M.D., *St. Louis* • HENRY T. RICKETTS, M.D., *Chicago*

ADVISORY EDITORS: CHARLES H. BEST, M.D., *Toronto* • FRANK N. ALLAN, M.D., *Boston*

ABSTRACTS EDITOR, JOHN A. GALLOWAY, M.D., *Indianapolis* • MANAGING EDITOR, EDWARD W. SANDERSON, *New York*

EDITORIAL BOARD

TERM EXPIRING DECEMBER 1969

GEORGE F. CAHILL, JR., M.D., *Boston*
MARVIN CORNBLATH, M.D., *Baltimore*
THADDEUS S. DANOWSKI, M.D., *Pittsburgh*
C. F. GASTINEAU, M.D., *Rochester, Minn.*
PAUL E. LACY, M.D., *St. Louis*
VAUN A. NEWILL, M.D., *Cincinnati*
MARVIN D. SIPERSTEIN, M.D., PH.D., *Dallas*
GERALD A. WRENSHALL, PH.D., *Toronto*

TERM EXPIRING DECEMBER 1970

JOHN W. ENSINCK, M.D., *Seattle*
STEFAN S. FAJANS, M.D., *Ann Arbor*
PETER H. FORSHAM, M.D., *San Francisco*
GEROLD M. GRODSKY, PH.D., *San Francisco*
PHILIP M. LECOMPTE, M.D., *Boston*
IRVING H. LEOPOLD, M.D., *New York*
ROGER H. UNGER, M.D., *Dallas*
PETER H. WRIGHT, M.D., *Indianapolis*

TERM EXPIRING DECEMBER 1971

JAMES ASHMORE, PH.D., *Indianapolis*
RUBIN BRESSLER, M.D., *Durham*
FREDERICK C. GOETZ, M.D., *Minneapolis*
CHRISTIAN R. KLIMT, M.D., DR. P.H., *Baltimore*
ARNOLD LAZAROW, M.D., PH.D., *Minneapolis*
RACHMIEL LEVINE, M.D., *New York*
ALEXANDER MARBLE, M.D., *Boston*
THEODORE B. VAN ITALLIE, M.D., *New York*

ABSTRACTORS

TERM EXPIRING DECEMBER 1969

MARIOS C. BALODIMOS, M.D., *Boston*
SAMUEL B. BEASER, M.D., *Boston*
ARTHUR R. COLWELL, JR., M.D., *Wilmette, Ill.*
HIROMICHI T. NARAHARA, M.D., *St. Louis*
OTAKAR V. SIREK, M.D., PH.D., *Toronto*
ELEANOR A. WASKOW, M.D., *Phoenix*

TERM EXPIRING DECEMBER 1970

JOSEPH D. BROWN, M.D., *Iowa City*
RICHARD A. CHERRY, M.D., *Hayward, Calif.*
PAUL S. ENTMACHER, M.D., *New York*
BERT F. KELTZ, M.D., *Oklahoma City*
CHARLES R. SHUMAN, M.D., *Philadelphia*

TERM EXPIRING DECEMBER 1971

BURIS R. BOSHELL, M.D., *Birmingham, Ala.*
WAYNE V. GREENBERG, M.D., *Pittsburgh*
RONALD K. KALKHOFF, M.D., *Milwaukee*
CHARLES A. ROSENBERG, M.D., *Washington, D.C.*
THOMAS G. SKILLMAN, M.D., *Columbus, Ohio*
LEON S. SMELO, M.D., *Birmingham, Ala.*

DIABETES is published by the American Diabetes Association, Inc., to provide an official Journal for the Association and to furnish the medical profession with information concerning diabetes and related fields of medicine.

Contributions are invited from practicing physicians, clinical and laboratory investigators, and others who have data of importance to offer in these fields. Manuscripts, if suitable, will be accepted providing that the text has not been printed elsewhere.

Matter appearing in DIABETES is copyrighted. Permission to reproduce all or part of papers appearing in it may be granted on application, under appropriate conditions and if proper credit is given. Such permission should be requested by written application to the Secretary of the Association.

All signed articles and editorials are the responsibility of the author(s) and not that of the American Diabetes Association.

The Editors will be pleased to consider for publication papers presented at the Annual Meeting of the American Diabetes Association.

Manuscript Specifications: The length of manuscripts (not including special articles or letters) should be limited to 5,000 words, exclusive of illustrations, etc. Exceptions to this limitation may be made at the discretion of the Editors.

Communications for the "Brief Notes and Comments" department should not exceed 1,000 words except in unusual circumstances. Figures and tables in these brief communications should be limited to one of each, and references should not exceed twenty in number.

Manuscripts should be typewritten, with double spacing and, if possible, submitted in triplicate together with three copies of figures and photomicrographs.

References should be presented in the style illustrated by the following examples:

For Periodicals—Banting, F. G., and Best, C. H.: The internal secretion of the pancreas. J. Lab. Clin. Med. 7:251-66, Feb. 1922.

For Books—Allen, Frederick M.: Studies Concerning Glycosuria and Diabetes. Cambridge, Harvard University Press, 1913, p. 461.

An abstract or summary of the content of the paper in not more than 250 words should usually appear at the beginning. If possible, this should be self-contained and understandable without reference to the text.

Photographs, drawings, and figures should be suitable for reproduction purposes. Photographs should be unmounted, untrimmed glossy prints. The names of authors should appear on the back. The tops of photographs and figures should be indicated.

Galley proofs are sent to the principal author of each paper, with a price list and order blank for reprints.

All manuscripts and editorial correspondence should be addressed to the Editorial Office, DIABETES, American Diabetes Association, Inc., 18 East 48th Street, New York, New York 10017.

Subscription and Advertising Information

DIABETES: *The Journal of the American Diabetes Association* is published every month by the Association at 18 East 48th Street, New York, New York 10017.

© American Diabetes Association, Inc., 1970. All rights reserved under International and Pan-American Copyright Convention.

SECOND CLASS POSTAGE PAID AT NEW YORK, N.Y. AND ADDITIONAL MAILING OFFICES.

Members receive the Journal as part of their membership privileges. The annual subscription rates for nonmembers are as follows: United States, U.S. Possessions, Canada and the Postal Union of the Americas and Spain, $14.00 per year; elsewhere, $16.00 per year. Individual copies available at $1.50 each.

Effective Jan. 1, 1970, the new rates will be $20.00 for one year; $35.00 for two years; $50.00 for three years. Individual copies $2.00. Overseas postage remains unchanged at $2.00 per year.

Medical students and physicians within five years after completion of medical school and bioscientists who are predoctoral or not more than two years postdoctoral: $7.00 per year. Effective Jan. 1, 1970, the new rates will be 50 per cent of the rates quoted in the previous paragraph plus overseas postage where applicable.

Correspondence concerning subscriptions should be addressed to the Subscription Department, DIABETES. Checks, money orders and drafts for subscriptions should be made payable to the American Diabetes Association, Inc., and sent to the aforementioned address.

All inquiries about advertising and other business matters should be addressed to the Executive Director of the American Diabetes Association. The publishers reserve in their full discretion the right to accept or reject any proposed advertising and the right to cancel any advertising contract.

SUBJECT INDEX 1969

This index covers all reading matter in Volume 18 of DIABETES. Entries marked with an asterisk (*) indicate material that appeared in the Abstracts only. The Author Index appears on page 28.

A

ACETOACETATE
and adipose tissue metabolism, *180-181

ACETOHEXAMIDE
and diabetes therapy, *244
insulin response to, 491

ACETYLCOENZYME A
and epinephrine, *643

3-ACETYLPYRIDINE
and blocking of streptozotocin-induced diabetes, 465

ACHARD-THIERS SYNDROME
and diabetes, 484

ACID MALTASE
and glycogen storage disease, *312

ACID-ETHANOL EXTRACTION
of goosefish insulin secretion granules, 129
of gut immunoreactive glucagon, 384
and insulin-like activity and immunoreactive insulin assays, 65-73

ACIDOSIS, DIABETIC
and cortisol secretion, *641-642
and streptozotocin therapy, 676

ACIDOSIS, LACTIC
and phenformin therapy, *247

ACIDS
amino. *See* Amino acids.
ascorbic
and hemorrhage, 522
and urine glucose measurement, 468-469
aspartic
and glucagon, 751, 753
in pork and human insulin, 210
cyclohexanesulfanic. *See* Cyclamate.
glutamic, 210
and blocking of streptozotocin-induced diabetes, 459
and glucagon, 751, 753
trichloroacetic, 85

ACROMEGALY
and diabetes, 44-49, 402
and free fatty acid uptake by muscle, 340
and growth hormone deficiency and pituitary apoplexy, *121
and growth hormone response to hypoglycemia, 404
and hyperglycemia, 300
and insulin and growth hormone responses to glucose loading, *705
and insulin storage, 619-624
and lipolytic effect of growth hormone, *184
and plasma insulin Sephadex fractions, 839
and serum growth hormone levels, *246

ACTH. *See* Adenocorticotrophic hormone.

ACTINOMYCIN D
and rat liver insulinase, *250

ADDISON'S DISEASE
in children, *247-*248
and cortisol, *580

ADENOSINE-3',5'-CYCLIC MONOPHOSPHATE
and calorigenesis, 804-805
and carbohydrate metabolism, 797-814
in diabetes, 812-814
and epinephrine, *643
and free fatty acid release, *707
and glucagon, *58-59
and release, 630
and hormones, *125
and insulin release, *250, 805-806
and insulin response of perfused rat liver, *181-*182
phosphodiesterase
and adrenalectomy, *442
and insulin, *583
plasma insulin response to, 264

ADENOSINE TRIPHOSPHATASE
and alloxan, 589-596
conversion to adenosine 3',5'-monophosphate, *125
in pancreatic beta cells, and glucose and hypoglycemic sulfonylureas, 509-515

ADENYL CYCLASE, *180, 800-801

ADIPOSE TISSUE
cellularity, and growth, starvation, and obesity, *788
and cyclic AMP, 806-809
extracts, and blood glucose levels, *705-706
glucose metabolism, 387-390
glucose utilization
and pyrazinamide, *708
glucose-1-C-14 oxidation studies, *60
and insulin-like activity assay, 66-67
metabolism
and islet-cell tumor, *709
and zinc, *711

ADRENAL GLANDS
congenital virilism, *247-*248
and diabetes, *181
and glucose utilization, *316
hyperplasia
and depot 6 alpha-methylprednisolone, *186
and hydrocortisone therapy, *251-*252
and insulinemia, *187
secretion
and diabetes, *58

ADRENAL MEDULLA
and sulfonylureas, 536
and tolbutamide, 534-535

ADRENALECTOMY
and adipose tissue effect on blood glucose levels, *705-706
and 3'-5-AMP phosphodiesterase activity
and glucocorticoids and insulin, *442
and plasma glucose response to vasopressin, *643
and tolbutamide
and blood glucose, 532

ADRENALINE
and insulin convulsions, *312
and insulin release, *501, 631
secretion
and glucose supply, *316

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

ADRENERGIC BLOCKING AGENTS, *502
and blood glucose, 266
and epinephrine-induced hyperglycemia
and lactic acidosis, *501
and ketosis, 426
and nicotinic acid-induced plasma free fatty acid rebound, *640
and propanolol, *182

ADRENERGIC STIMULATING AGENTS
and glucagon release, 630
and insulin secretion, 262-266

ADRENOCORTICOTROPHIC HORMONE
and acromegaly, 47
and insulin degradation, 550-555
and insulin secretion, *580
and lipolysis
and insulin, *60
and plasma insulin levels, 265-266
secretion
and acromegaly, 49

AGE
and basement membrane thickening, *871
and blood glucose regulation, *180
and blood sugar, *705
and clofibrate treatment of retinopathy, 286, 287-288
and diabetes, 36, 849, 851, 853
of diabetes diagnosis, *579
of diabetes onset
and examination of relatives, *580
and diabetes prevalence, *247
and diabetic retinopathy, 773-780
and diameters of retinal vessels in diabetics and normals, 292-297
and fat distribution study, 497-486
and gallbladder size, 496
and glucose metabolism
and insulin sensitivity, *181
and glucose tolerance, *711
and hyperglycemic, hyperosmolar coma, 108
and insulin response, 491
and insulin secretion in mice, *249
maternal
and congenital anomalies, 473-475
and plasma insulin disappearance rate, 654, 659
of pregnant subclinical diabetics, 154-155
of South African diabetics in capillary study, 165
and vascular disease and blood lipids in diabetics, 670-673

ALANINE
and glucagon, 751,753
in pork and human insulin, 210
removal from insulin, 194, 195

ALASKA
diabetes survey in, 29-32

ALBUMIN
-bound growth hormone, *244
and diabetic ketosis, 781-785
and glucose uptake, *119
and insulin inhibition, *253

ALCOHOL
and diabetes
and hypoglycemia, *179
and extraction of insulin from human pancreas, 209-210
and gluconeogenesis, *642
and glucose tolerance testing, 301
hypoglycemia
and obesity, *244
and insulin immunoassay, 660-669

ALCOHOLISM
and coca leaf chewing, 723
and fatty liver, *60
and tolbutamide metabolism, *247

ALFALFA
and diabetes, 561, 566

ALKALINE PHOSPHATASE
and diabetic diarrhea, 861
and diabetic ketosis, 781-785

ALLOXAN
and enzyme activity of pancreatic islets, 589-596
and insulin degradation, 553
and insulinase, *503
and streptozotocin, 611

ALLOXAN DIABETES
and basement membrane thickening, *871
and brain and sciatic nerve lipids and fatty acids, 556-560
and catecholamine excretion and neuropathy, 625-626
and glucose metabolism, *124
and hypertriglyceridemia and lipoprotein lipase in rabbits, *251
and kidney gluconeogenesis, *316
and kidney metabolites, *184
and liver insulinase, *120, *250
and liver lipid metabolism, *787
and microangiopathy in dogs, 455-458
and pancreas beta cell morphology and insulin content, 138-144
and serum immunoreactive insulin and changes in body weight, *711
and work-induced muscle growth, *314

AMERICAN DIABETES ASSOCIATION
Affiliate Associations List, 62, 256
annual banquet, 645
annual meetings
abstracts, 61-62, 126
of Central Council, 645-647
Twenty-ninth, 61, 126, 191-192, 254-255, 319, 507, 586, 644-649
Thirtieth, 443, 507, 649, 713, 793-794, 875
awards
Lilly, 507, 587, 649-650, 715, 794
Committee on Affiliate Associations, 64
Committee on Bequests, 64
Committee on Camps, 63
Committee on Charles H. Best Birthplace, 64
Committee on Emergency Medical Care, 63
Committee on Employment and Insurance, 63
Committee on Food and Nutrition, 62
Committee on Functions and Structure, 64
Committee on Information for Diabetics, 63
Committee on Professional Education, 62-63
Committee on Professional Membership, 63
Committee on Public Education and Detection, 63
Committee on Research, 63-64
Committee on Scientific Programs, 63
Committee on Scientific Publications, 63
Committee on Statistics, 63
Committee on the Use of Therapeutic Agents, 63
DIABETES Index, 256
Diabetes Week, 443, 507, 588, 651, 716
Executive Committee, 62
film on coma, 127-128, 320, 716
FORECAST
"Artificial Sweeteners in Foods and Beverages," 876
"Diabetes and Peptic Ulcer," 716
"Exciting Discoveries about Insulin," 128
"When A Natural Disaster Strikes," 795
History of the American Diabetes Association, 443-444
necrology, 64, 128, 256, 320, 444, 588, 652, 716, 796, 876
new members, 64, 128, 256, 444, 794-795
news of Affiliate Associations, 64, 128, 256, 320, 652, 795
News Notes, 64, 128, 192, 256, 320, 444, 507, 588, 652, 716, 876
Nominating Committee, 62
obituaries
Lawrence, R. D., 54-55
Paramedical Postgraduate Course, 62, 189-191, 256, 319-320

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

personals, 128, 320, 444, 588, 716, 796, 876
postgraduate courses, 127, 192, 255, 256, 319, 443, 444, 507, 587, 713-714, 716, 790-793, 796, 874
publications
about diabetes, 716
Research Contest, 127, 192, 320, 876
Research and Development Awards, 587, 650-651, 714
research grants program, 62, 127, 714, 794, 875-876
research symposium
eighth, 256, 319, 443, 505-506, 586, 714
subscription rate, 588

AMINO ACID
composition of chicken insulin, *580
composition of crystalline human insulin, 209-210
composition of pork and human insulins, 210
and glucagon and insulin secretion, 718
and glucagon release, 629, 631, 751, 753
glucagon response to, 5-7, *504
and insulin release, *641
and protein diets, 523-527
sequence of bovine insulin, 195
sequence of porcine proinsulin, *312
serum-insulin response to
in premature infants, *440
transaminases
and glucagon and insulin, *501
transport in fat cell ghosts, *707
transport-specific, bicyclic, *787

2-AMINOBICYCLO HEPTANE-2-CARBOXYLIC ACID, *787

AMINOETHANOLS
and insulin, 262

AMINONITROGEN
and arginine tolerance, 721

AMMONIA
in pork and human insulin, 210

AMPUTATION, 431

AMYLASE
and protein-calorie malnutrition, 470, 492
release
and cyclic AMP, 810

AMYLO-1-6-GLUCOSIDASE, *180
deficiency
and glycerol, *186

AMYLOPECTINOSIS. *See* Glycogen storage disease, type IV.

AMYOTROPHY, DIABETIC, *246

ANDROGENS
and diabetes, 484-485

ANDROSTERONE
and clofibrate, 289-290
and diabetic retinopathy, 285

ANEMIA
and diabetes, *318
and pagophagia, 396, 427
pernicious, *318
and vascular disease, 429

ANGIOGRAPHY
and pancreatic neoplasm detection, *709-*710

ANGIOPATHY
diabetic occlusive, 429
retinal
and macular dysfunction, *314

ANTAGONISTS. *See* Antibodies to insulin; Synalbumin antagonist.

ANTHRONE REAGENT
and determination of urinary glucose excretion, *253

ANTIBIOTICS
and diabetic diarrhea, 863

ANTIBODIES
to insulin, *788
binding study, 193-205
and insulin immunoassay, 660-669
and insulin-resistant diabetes, 445-453
and neutralization of capybara insulin, 212-215
intrinsic factor and parietal-cell
and anemia in diabetics, *318

ANTICOAGULANTS
and glucose tolerance tests, 302

ARGININE
and glucagon, 751, 753
glucagon response to
and starvation, 717-722
insulin and glucagon response to, 720
and insulin release, *641
and insulin secretion in dwarfs, *249-250
and juvenile diabetes, *640
and plasma growth hormone and insulin, *583
and plasma growth hormone response, *441
in pork and human insulin, 210

ARTERIES. *See* Blood vessels.

ARTERIOGRAPHY
and vascular disease in diabetics, 430

ARTERIOSCLEROSIS
and diabetes, 428-433

ASPARAGINE
and blocking of streptozotocin-induced diabetes, 459, 464
and glutamine and glucagon, 751, 753
removal from insulin, 194-195

ASTHMA
among South African diabetics, 165
and growth hormone, *244

ATHABASKAN INDIANS
diabetes survey, 29-32

ATHEROSCLEROSIS
and cholesterol-free diets, *183
and diabetes, *187
and dietary fatty acids, *185
geographic pathology of, 28

ATROMID, 290

ATROPINE
and insulin release, *317, *503, *710

AUTOANALYZER, 518
and blood acetoacetate determinations, *711
and blood sugar regulation technic, *119
and serum study of ketosis, 781-785

AUTOANTIBODIES
thyroid
and diabetes and hypothyroidism, *313

AUTOIMMUNITY
and diabetes, *318

AZATHIOPRINE
and glucose metabolism, 109

AZOTEMIA
and glucose intolerance, *442
and liver cirrhosis
and glucose tolerance tests, *313

B

BANTU AFRICANS
and diabetes, hyperglycemia and glycosuria, 840-856

BASEMENT MEMBRANE
and ascorbic acid deficiency, 541
estimation of thickness, 567-577
statistics in dogs, 455-458
thickening
and diabetes, *871

BENZOTHIADIAZINES
as hyperglycemic agents, *584-585
and plasma insulin, 21

BETHANECHOL
and insulin secretion, *316-317

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

BILE
glucose, *788
insulin and glucagon
and pancreozymin, *244

BILIRUBIN
and diabetic ketosis, 781-785

BIOTIN
and hepatic glucokinase synthesis, *312

BLOOD
acetoacetate assay, *711
amino acids
and glucagon, 748-754
ammonia
and glucose levels, *501-502
cholesterol
and vascular disease, 673
flow
and adenosine triphosphate levels in pancreas beta cells, 511
in feet of diabetics, *787
and thiopental, 414
free fatty acids
and glucagon, *709
glucagon
and glucagon secretion assays, 1
glucose. *See* Blood glucose.
hemoglobin
and coca leaf chewing, 723
and diabetic diarrhea, 861
insulin and glucagon
and pancreozymin, *244
insulin-like activity and immunoreactive insulin, 65-73
ketone bodies and nonesterified fatty acids
and starvation, *186
lactic acid
and phenformin, 613-615
leukocyte brancher enzyme activity
and glycogen storage disease, *248
leukocyte phosphorylase
and amylo-1, 6-glucosidase deficiency, *313-314
leukocytes
and diabetes, *57, *117-118
lipids
and vascular disease, 670-673
pernicious anemia
and diabetes, *318
pyruvate
and glucose loading, 633-638
and glucose tolerance tests and obesity, *313
pyruvate and lactate
and infections, *246
samples
and cardiovascular lesions study, 227
and diabetes survey, 34
in glucose tolerance survey, *705
in glucose turnover rate study, 821-822
and insulin response to glucagon study, 216
and insulin-like activity assays, 66, 75-76
in progestin study, 147
timing for glucose tolerance tests, 302
sugar. *See* Blood sugar.
tests
and acromegaly and diabetes, 45
trace elements
and diabetes, 566
urea nitrogen
and benzothiadiazines, 23

BLOOD GLUCOSE. *See also* Blood sugar.
and adipose tissue extracts
in diabetic mice and adrenalectomized rats, *705-706
and amino acid, *787
and beta adrenergic antagonist, *501
and blood ammonia levels, *501-502
and caffeine, *641
and capybara insulin study, 213-214
and Dilantin, 101-106
and erythroblastosis fetalis, *180
and feeding frequency, *706
of fetus during labor, *120
and gastric emptying rates, *311
and glucagon secretion, 11-17
and glycerol, *186
high-frequency oscillations, *441
and hyperinsulinemia, 397
and insulin dosage and diabetes lability, *502
and insulin in mother and fetus, *789
in insulin-injected newborn calves, *312
and islet implants in obese mice, *253
and oral contraceptives, *318
and phenformin, 613-616
regulation
environment and, *180
response to oral carbohydrate solution, 435
and sodium salicylate, *439
and time course of insulin release, 530-532
and tolbutamide
and insulin, 90
tolerance tests
and prediabetes, *871

BLOOD PRESSURE. *See also* Hypertension; Hypotension.
and diabetic retinopathy, 691
and diazoxide, 26

BLOOD SUGAR. *See also* Blood glucose.
and alloxan diabetes, 139-140
and body weight, *711
in children with abnormal glucose tolerance test, 240
and corticotrophin stimulation, *311
and diabetes
and alcoholism, *179
and diazoxide-trichlormethiazide regimen, 21
and diurnal variations in glucose tolerance, *60, *709
during oral glucose tolerance tests, 679-680
and exercise, *252
and growth hormone, 555
and hyperglycemic hyperosmolar coma, 108-109
and insulin dosage
and gastric secretion, *313
and monamine oxidase inhibitors, 301
of normal and alloxan diabetic rabbits, 139
and prednisolone, *582
and pregnancy, *870
and pyrazinamide, *708
of rats
in hepatic glucokinase activity study, 258-259
regulation technic, *119
in South African survey, 841, 843-844, 849-850
of stable diabetic, 488
and thiazide diuretics, *440-441
and tolbutamide, *311
in chemical and early overt diabetes, 687
in young Indian diabetics, 671

BLOOD VESSELS
arteries
femoral and popliteal, 433
and lipogenesis, *253
capillaries
basement membrane thickening, 567-577, *871
and cotton-wool spots, 691-704
and hemorrhage, 522, 541
and juvenile diabetes, *119
resistance, *708-709
and retinal microangiopathy, *314
in South African diabetics, 164-175
in feet of diabetics, *787
and hyaline membrane disease, *59
pancreaticoduodenal vein
and insulin output studies, *183
regulation of tone of, *250
retinal
in diabetics and normals, 292-297
skin capillaries
and hypophysectomy, *438

BODY
build
of Indian diabetics, 671
changes in acromegaly and diabetes, 44-46
feet
and blood flow in diabetics, *787

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

growth
and glycogen storage disease, *314
and growth hormone deficiency, *316
and medium chain triglycerides, 74
height
and congenital adrenal hyperplasia, *251-*252
and Turner's syndrome, *582
height and weight
of Athabaskan Indians, 31
insulin utilization, 658
legs
and vascular disease, 429-430
odor
and metabolic defects, 100, 284
weight. *See also* Obesity; Weight.
and basal free fatty acid levels, 760
and coca leaf chewing, 723
and diabetes prevalence, *247
and glucose metabolism and insulin sensitivity, *181
and hepatic glucokinase activity, 259-260
and insulin resistance, *179
and overfeeding, 597
and pancreatic duct ligation, *316
and serum immunoreactive insulin, *711
and serum insulin and growth hormone responses, *871
and tolbutamide and buformin therapy, *56
weight loss
and oral hypoglycemics, *873

BONES
collagen and chondroitin sulfate synthesis
and insulin and growth hormone, 280-283

BOOK REVIEWS
Care and Feeding of Your Diabetic Child, The, by Sally Vanderpool, 437
Dietetic Foods, by A. E. Bender, 437

BRAIN
of alloxan diabetic rat
lipids and fatty acids, 556-560
glucose metabolism
and insulin and liver, *579
glucose utilization
and hexose, *316
and hyperosmolar coma, 114

BUFORMIN
and tolbutamide
and maturity-onset diabetes, *56

BURN-STRESS PSEUDODIABETES, 106

BURNS
and glucose tolerance, 300
and glucose tolerance, insulin, and free fatty acid levels, *311
and hyperglycemia, 106, *710
and hyperosmolar nonketotic coma, 114

C

CAFFEINE
and glucose tolerance tests in dogs, *641

CALCIUM
absorption
and diet, 74
and catecholamine release
and propranolol, 266
and cyclic AMP, 810
and diabetic ketosis, 781-785
and insulin release, *245, *315
and phosphorylase kinase, *316

CALORIES
intake
and vascular disease, 673
and overfeeding, 597

CALORIGENESIS
and cyclic AMP, 804-805

CAPILLARIES. *See* Blood vessels.

CARBOHYDRATES
of goosefish insulin secretion granules, 130
induced hyperlipoproteinemia
and hyperinsulinism, *313
inducibility
and hyperlipoproteinemia, 739-746
induction of hypertriglyceridemia, 739
intolerance
and obesity, 453, 759-771
metabolism. *See* Metabolism, carbohydrates.
oral
plasma insulin responses, 434-436
plasma insulin and growth hormone response to, *251
restriction
and carbohydrate tolerance, 300
synthesis
and glucagon, *502
tolerance
and pregnancy, placental lactogen and prednisolone, 153-162
and progesterone treatment, 147-151
and repeated glucose administration, 232-236
tolerance tests, 434-436
and diabetes diagnosis, *711
transport system
and tolbutamide, 84-93
utilization
and exercise, *252

CARBON DIOXIDE
and diabetic ketosis, 781-785
oxidation of glucose to
and tumors, 389-390

CARBON MONOXIDE POISONING
and glucose tolerance, *57

3-CARBOXY-5-METHYLPYRAZOLE
and blocking of streptozotocin-induced diabetes, 459

CARBOXYPEPTIDASE A
hydrolysis with crystalline human insulin, 208, 209-210

2-CARBOXYPRAZINE
and blocking of streptozotocin-induced diabetes, 459, 462

CARBOXYTOLBUTAMIDE
and 2-deoxy-D-glucose uptake, 90
and insulin release
and blood glucose, 535-536

CARBUTAMIDE
and thyroid function, *182

CARCINOMA
and cyclamates, 867-868
islet cell
and streptozotocin, 675-678
liver
and glycogen storage disease, *188
and streptozotocin, *251

CARDIOVASCULAR DISEASE. *See also* Heart disease.
and diet, 225-230
in young Indian diabetics, 672

CARNITINE, *249

CASE REPORTS
acromegaly and diabetes, 44-46
acute pancreatitis and hypoglycemia, *317
acute quadriplegia and diabetic hyperosmotic coma, *581
cerebral gigantism, *710-711
cotton-wool spots in diabetic retinopathy, 691-704
diabetes and hyperosmolality in children, *583
diabetes and neuropathic ulcer, *439
diabetes and retinopathy, 773-780
diabetic amyotrophy, *246
diabetic diarrhea, 859-861
diabetic neuropathy and diphenylhydantoin therapy, *245
Dilantin and coma, 101-104
factitious hypoglycemia, *318
fat-induced hyperlipemia, *122
femoral and popliteal occlusive vascular disease, 428-431
glucose-responsive insulinoma, *317
glycogen storage disease, *441
and fungal glucosidases therapy, *248
and liver carcinoma, *188

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

growth hormone deficiency and normal growth, *316
hyperglycemia, ketoacidosis and coma in nondiabetic hyperthyroid patient, *252-*253
hyperinsulinism and carbohydrate-induced hyperlipoproteinemia, *313
hyperlipoproteinemia, 739-746
idiopathic hypoglycemia, *709
immunosuppressive therapy, 107-108
insulin secretion in myotonic dystrophy, *246-*247
insulin-resistant diabetes, 446-450
insulin-resistant obese diabetics and oral hypoglycemic drugs, *246
lactase deficiency and cystic fibrosis, *438
lactic acidosis and phenformin, *247
Leigh's encephalomyelopathy, *118
linear growth of children with congenital adrenal virilism and Addison's disease, *247-*248
pancreatic neoplasm, *710
pituitary ablation and diabetic retinopathy, *245
plasma insulin and glucose tolerance changes in stable diabetes, 487-491
pregnancy in diabetic with cystic fibrosis, *120
retinopathy and clofibrate treatment, 285-291
serum growth hormone levels in acromegaly, *246
short asthmatic children and human growth hormone treatment, *244
streptozotocin and islet cell carcinoma, 675-678
Turner's syndrome, ovarian dysgenesis, and growth hormone secretion, *582

CASEIN
and ketone body formation, *186

CATAGLYCEMIA
and glucagon secretion, 5

CATARACTS, 626

CATECHOLAMINES
and cold
and neuropathy in diabetic rats, 625-626
and hyperglycemia, 300
and insulin release, 540

CEREBRAL CORTEX
and stimulation of growth hormone secretion, *181

CEREBROVASCULAR DISEASE
in young Indian diabetics, 671-672

CHILDREN
and adrenal hyperplasia
and hydrocortisone therapy, *251-252
and arginine infusion
and plasma growth hormone and insulin, *583
and chemical diabetes
and effect of glucagon on "insulin reserve," 679-685
and chemical and early overt diabetes
and effect of intravenous tolbutamide on "insulin reserve," 686-690
with congenital adrenal virilism and Addison's disease
drug therapies compared, *247-*248
and diabetes
and hyperosomolality, *589
of diabetic mothers
and congenial anomalies, 471-477
of diabetic parents, *869
and serum insulin and growth hormone responses and body weight, *871
growth-hormone deficient, *316
and idiopathic hypoglycemia, *709
and lactose malabsorption, *642
and nutrition rehabilitation centers, 231
and Oasthouse syndrome, 100
and pellagra, 833
with protein-calorie malnutrition and pancreas study, 470, 492
and relationship between obesity, chemical diabetes, and beta pancreatic function, 238-242
serum luteinizing hormones in, *580
short asthmatic
and albumin-bound growth hormone, *244

CHLORIDE
and diabetic ketosis, 781-785

CHLORMADINONE ACETATE, 146

CHLOROTHIAZIDE
and glucose tolerance
and potassium levels, 24-25

CHLORPROPAMIDE
and elderly diabetics, *252
and neonatal hypoglycemia, *188
and obese maturity-onset diabetes, *873

CHLORTHALIDONE
and glucose tolerance
and serum potassium levels, 24-25

CHOLECYSTOKININ-PANCREOZYMIN
and insulin release, 381-385

CHOLECYSTOMEGALY, DIABETIC, *706

CHOLESTEROL
absorption
and pancreatectomy, *311
and atherosclerosis in rabbits, *183
-ester formation
in aortas of cholesterol-fed rabbits, *251
and nicotinic acid therapy, *244

CHONDROITIN SULFATE
synthesis
and insulin and growth hormone, 280-283

CHROMATOGRAPHY
column
and insulin activity study, 194
and insulin labeling study, 51-53
ketoacid, 284

CHYLOMICRONEMIA, 562

CHYLOMICRONS
and mixed hyperlipemia, 562-565

CHYMOTRYPSIN
and protein-calorie malnutrition, 470, 492

CIRCADIAN PERIODICITY
of plasma 11-oxysteroid levels and plasma growth hormone to insulin hypoglycemia, *503

CIRCULATION. *See* Blood flow.

CITRULLINE
and glucagon, 751, 753

CLINITEST
and glucosuria tests, *581

CLOFIBRATE
and retinopathy, 285

COCA LEAF CHEWING
and malnutrition, 723

COCOPAH INDIANS
and diabetes, 33-37

COENZYME A ESTERS
and glucagon, adenosine-3',5'-monophosphate, and theophylline, *707

COFFEE
and glucose tolerance, *439

COLLAGEN
synthesis
and insulin and growth hormone, 280-283

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

COMA
and corticosteroids, 107-109
hepatic
and diet, 391
hyperglycemic nonketotic
and Dilantin, 101-106
hyperosmotic
and acute quadriplegia, *581
mechanisms and management, 111-116
and Navajo Indians, *121
in nondiabetic hyperthyroid patient, *252-253
and pancreatitis, *441
and peritoneal dialysis, *124
without ketoacidosis, *643

CONGENITAL DEFECTS
adrenal hyperplasia
and hydrocortisone therapy, *251-*252
adrenal virilism and Addison's disease, *247-*248
and diabetes
in Pima Indians, 471-477
and diabetic pregnancy, *120
and glycogen storage disease, *248

CONVULSIONS
and capybara insulin study, 213-214
and hypoglycemia in infants, *315
and insulin-injected newborn calves, *312
and insulinoma, *317

CORONARY DISEASE. *See* Cardiovascular disease; Heart disease.

CORTICOIDS
excess and infection, *246
and growth hormone secretion, *186
and lipid metabolism and urea formation, *188
and glucose tolerance and plasma insulin in rheumatoid arthritis patients, *317

CORTICOSTEROIDS
and osmolar, nonketoacidotic coma, 107-109

CORTICOTROPIN
plasma insulin response to
and MJ 1999, 263
stimulation
and plasma corticosteroids, insulin, and blood sugar, *311

CORTISOL
binding capacity
and age of diabetes diagnosis, *579
secretion
in juvenile diabetes, *641-642

CORTISONE
and glucagon response, *712
-glucose tolerance tests, 572, *640
and insulin tolerance tests, *870
and kidney gluconeogenesis, *316

COTTON-WOOL SPOTS, 691-704

CREATININE
clearances
and pituitary ablation, *245

CYCLAMATES, 867-868

CYSTATHIONINE
and glucagon, 751, 753

CYSTEINE
and blocking of streptozotocin-induced diabetes, 459-460

CYSTIC FIBROSIS
and diabetic pregnancy, *120
and lactase deficiency, *438

CYTOCHROME OXIDASE
of goosefish insulin secretion granule, 130, 131

D

2-DEOXY-D-GLUCOSE
and glucose metabolism of islets of Langerhans, *247
and muscle sugar transport system, 84-93
uptake
and tolbutamide, 87

2-DEOXYGLUCOSE
and blocking of streptozotocin-induced diabetes, 459, 460-462

2-DEOXYGLUCOSE-6-PHOSPHATE, 84

DEPHOSPHOPHOSPHORYLASE KINASE DEFECT, *180

DEXAMETHASONE
and acromegaly, 47
and plasma growth hormone response to insulin and arginine, *441

DEXTRAN
-coated charcoal insulin immunoassay, *580

DIABETES MELLITUS
and acetohexamide therapy, *244
and acromegaly, 44-49, 402
and adipose tissue effect on blood glucose levels, *705-706
age of onset
and heredity, *580
and amyotrophy, *246
and anemia
and intrinsic-factor and parietal-cell antibodies, *318
and arthritis
and corticosteroid therapy, *317
asymptomatic
and oral hypoglycemic agents, *873
and atherosclerosis
and insulin, *187
and beta cell mitosis, *642
and blood flow in feet, *787
and capillary resistance
and retinal hemorrhage, *708-709
and capillary ultrastructure, 164-175
and cardiovascular lesions
and insulin and diet study, 225-230
chemical and overt
in children, 679-685, 686-690
and cholecystomegaly, *706
and cholecystopathy, *440
and circadian adrenal rhythm, *58
and Cocopah Indians, 33-37
and congenital anomalies
in Pima Indians, 471-477
control
and retinopathy, 773-780
and corticotrophin stimulation, *311
and cyclic AMP, 812-814
detection
and glucagon, *872
in Munich, *582
diagnosis, *711
age of, *579
and oral glycogen loading, *786
and diameters of the retinal vessels, 292-297
and diarrhea, 858-865
diazoxide-induced, 19-26
and diet
and cyclamates and artificial sweeteners, 867-868
and Dilantin therapy, 103-106
duration
and proteinuria, *120
and vascular disease, 429
early
and serum insulin, *186
and elderly patients
and chlorpropamide, *252
and encephalomyocarditis virus, *180, *314
and endocrine organ changes, *181
etiology
and pancreas beta-cell dysfunction, *870
and fat distribution patterns, 478-486
and fat and ketone body metabolism
and norepinephrine infusion, *585
and fatty liver, *60
and gallbladder size, 493-498
genetics, studies of
and glucose conversion study, 545-549
and glucose tolerance
and plasma insulin, 487-491

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

and glucose uptake
and diet, sulfonylureas and phenformin, *312
and glycosuria home-tests, *581
and growth hormone release, *641
and γ-guanidino-butyramide, *786-787
and heart muscle RNA metabolism, *125
and hepatic artery ligation in dogs, *184-185
hereditary, *869
and glomerular lesions in mice, *584
mode of transmission, *582
hyperglycemic, hyperosmolar, nonketoacidotic
and steroid and immunosuppressive therapy, 107-109
and hyperlipemia
and heparin, 562-565
and hyperosmolar coma, 111-116
and hyperosmolality, *583
and hypoglycemia
and alcoholism, *179
and hypophysectomy, *184
and skin capillary resistance, *438
and hypothyroidism
and long arm X isochromosome, *313
idiopathic transitory, *125
and infertility, *871
and insulin
and gastric secretions, *313
and insulin delivery rate into plasma, *584
and insulin metabolism, *870
and insulin release
and secretin, *502
and insulin response to glucose infusion, 273-279
and insulin secretion, *248-*249, *870
and secretin, *317
insulin-resistant, 445-453
and insulin-binding study, *788
juvenile
and capillary microscopy, *119
and cortisol secretion, *641-642
and diameters of retinal vessels, 292-297
and effect of glucagon on insulin reserve, 679-685
and factitious hypoglycemia, *318
and growth hormone, *640
and insulin binding, *642
and ketone responsiveness to epinephrine, 421-426
and plasma insulin and growth hormone levels, *706-707
and psychiatric tests, *122-123
and retinopathy, *706, *789
and serum glucose, insulin, and free fatty acids of relatives, *124
and urine proinsulin, *185
and ketonemia and blood sugar
diurnal variations in, *60
lability
and blood glucose analysis, *502
latent
and basement membrane thickening, *871
and leukocyte glycogentransferase, *117-118
and leukocytes, *57
and lipogenesis in arterial tissue, *253
and liver cirrhosis, *642-643
and liver palmitate-1-C-14 metabolism
and insulin, *315
and lucerne, 561, 566
maternal
and urinary catecholamines of infants, *186-187
maturity-onset
and "big insulin" and growth hormone, *869-870
and chlorpropamide, *873
and estrogen, 485
and heredity and environment, *117
and hyperglycemia, 277-278
and obesity, 241-242
and plasma glucose response to vasopressin, *643
and tolbutamide and buformin, *56
and tolbutamide during surgery, *185
and motor conduction velocity, *182
and muscle capillary basement membranes, *504
and muscle hypertrophy, *314
natural history, *872
and neuropathic ulcer, *439
and neuropathy, *120-121
nonketotic hyperosmotic
and serum insulin levels, *182
and obesity
and beta pancreatic function, 238-242
and insulin response to glucagon, 216-223
and oral hypoglycemics, *246
and regulation of fat mobilization, 759-771
onset
and gestational diabetes, *872
and pancreas cell differentiation, *869
in pregnancy, *870-871
and sulfonylureas, *873
and oral contraceptives, *317-318
and pancreatectomy, *183
and pancreatic duct ligation, *316
and pancreatic surgery, *248
pathogenesis
and obesity, *581
and plasma insulin
and protein, 523-527
and plasma insulin disappearance rate, 653-659
and plasma insulin and growth hormone response to carbohydrate and protein feeding, *251
and plasma insulin Sephadex fractions, 836, 839
and pregnancy
and cystic fibrosis, *120
prevalence
and Down's syndrome, *786
and proinsulin, *870
remissions, 491
and oral hypoglycemic therapy, *873
and pituitary apoplexy, *121
screening, *247
and familial tests, *124
and Seneca Indians, 38-43
and small bowel motility, *642
and Social Security Disability Program, *251
steroid-stress
and insulin response to glucose, *640
streptozotocin-induced. *See* Streptozotocin diabetes.
subclinical
and pregnancy, 153-162
surveys, *706
of Athabaskan Indians, 29-32
among Indians, Malays and Bantu Africans, 840-856
and Navajo Indians, *121
among Seneca Indians, *788
and swallowing disorder, *710
and thiazide diuretics and N-monomethylacetamide, *440-441
5-thio-D-glucopyranose induced, *441
and tic douloureux, *312
and tolbutamide
and alcohol, *247
and fatty liver, *311
and serum insulin, 499-500
treatment
and diet, *872
and uremia, *58
and urine zinc loss, *711
and vascular disease, 428-431
and blood lipids, 670-673

DIARRHEA, DIABETIC, 858-865

DIAZOXIDE
and blocking of streptozotocin-induced diabetes, 459, 460, 464
and cyclic AMP, 805
and glibenclamide, *442
and glycogen storage disease, *121
and hyperglycemia, *504
and insulin secretion, 19-26
and phosphodiesterase inhibition, 514

DIET
and acromegaly
and diabetes, 46-47, 48

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

and asymptomatic diabetes, *873
of Athabaskan Indians, 29, 31-32
atherogenic
and cardiovascular lesions, 225-230
and atherosclerosis in rabbits, *183
and blood glucose regulation, *180
and burns, *710
carbohydrate and protein
and plasma insulin and growth hormone response, *251
and cyclamates, 867-868
deficiency in ascorbic acid
and capillary hemorrhage, 522, 541
and early diabetes, 685, *872
and fatty acids, 96-99
and atherosclerosis and thrombosis, *185
feeding frequency
and diurnal plasma free fatty acids and glucose levels, *706
and gastrointestinal disorders, 391
in glucose infusion study, 274
and glucose metabolism, *181
and glucose tolerance testing, 301
and glucose uptake
and diabetes and obesity, *312
and hepatic glucokinase and hexokinase, 259-260
high carbohydrate
and hyperinsulinism, *313
and hyperlipoproteinemia, 739-746
high cholesterol
and cholesterol-ester formation in aorta, *251
high sucrose
and heart disease, *184
and insulin response to glucagon, 216
and insulin-resistant diabetes, 453
ketogenic
and alcohol hypoglycemia in obese subjects, *244
low carbohydrate
and carbohydrate tolerance, 300
meals and nibbling compared
and glucose utilization, *503
and medium-chain triglycerides, 74
overfeeding
and lean and obese subjects, 597
and regulation of food intake, *251
of Rhesus monkeys in progestin study, 146
zinc-deficient, *57, 95

DIHYDROFLUMETHIAZIDE
and glucose tolerance
and serum potassium levels, 24-25

DILANTIN. *See* Diphenylhydantoin.

3,5-DIMETHYLPYRAZOLE
and blocking of streptozotocin-induced diabetes, 459

DIPHENYLHYDANTOIN
and diabetic neuropathy, *245
and hyperglycemic, nonketotic coma, 101-106

DIPHOSPHOPYRIDINE NUCLEOTIDE
oxidation
and infection, *246

DOGS
and diabetic microangiopathy, 455-458
and streptozotocin diabetes, 544

DOPAMINE
pancreatic, *57

DOWN'S SYNDROME, *583
and diabetes prevalence, *786
and nondiabetic and diabetic pregnancies, 474

DWARFISM
sexual ateliotic
and insulin and growth hormone secretion, *249-250

E

ELECTROCARDIOGRAMS
and hyperglycemia, *872

ELECTRON MICROSCOPY
of capillary basement membrane, 567-577
of cytochemistry of 5-hydroxytryptamine in beta cells, *247
of goosefish insulin secretion granule, 130
of kidney basement membrane, 455-458
of muscle tissues of amyotrophic diabetics, *246
of pancreatic beta cells of alloxan diabetic rabbits, 140-142

ELECTROPHORESIS
disc gel
of crystalline human insulin, 208
of dog serum and extracts, 69
of goosefish insulin secretion granules, 130, 134-135
and insulin-like activity assays, 69-70
polyacrylamide disc-gel
and insulin assay, 393-394
starch gel
of hexokinase, 257

ENCEPHALOMYELOPATHY, *118

ENCEPHALOMYOCARDITIS VIRUS
and diabetes, *334

ENDOCRINE GLANDS
function
and glycogen storage disease, *314
of monolayer cultures of neonatal hamster pancreas, *503
and glucose tolerance, 300
and hyperglycemia, 300
and hypothalamus disease, *503

ENZYMES
activity
and glucagon, *502
and conversion of glycogen to glucose, 798-803
and cystic fibrosis, *438
fetal
and maternal insulin, *870
glucokinase
and glucose tolerance, 257-261
gluatathione-insulin transhydrogenase of kidneys, 176-178
and gluconeogenesis control, *708
and glycogen storage disease, *248
in hepatoma and normal liver, *180
induction
and cyclic AMP, 803
and insulin release, *117
and ketone-body metabolism, *125
of leukocyte brancher
in glycogen storage disease, *248
of pancreatic islets
and alloxan, 589-596
pancreatic production
and malnutrition, 470, 492
and pellagra, 833
synthesis
and cyclic AMP, 810

EPINEPHRINE
and diabetogenic action of streptozotocin, 463
and glucagon release, 630
and gluconeogenesis, *643
hepatic effects, 798-803
-induced hyperglycemia and lactic acidosis
and beta adrenergic antagonists, *501
and insulin secretion, *502, *641
ketone responsiveness to
and juvenile diabetes, 421-426
lipolytic response to, *184
and muscle, 803-804
and streptozotocin-induced diabetes, 463

ERYTHROBLASTOSIS FETALIS
and hypoglycemia and hyerinsulinism, *179-*180

ESKIMOS
and diabetes, 29-32

ESOPHAGUS
and diabetes, 497, *710

ESTROGEN
and diabetes, 484-485

ETHYL ALCOHOL
streptozotocin-induced diabetes, 464

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

ETHYL-p-CHLOROPHENOXYISOBUTYRATE, *706

ETHYLENEDIAMINE TETRA-ACETATE, 302

ETHYNODIOL
and carbohydrate tolerance, 151

ETHYNODIOL DIACETATE, 146

EXERCISE
and alcohol hypoglycemia in obese subjects, *244
and blood glucose
and propranolol, 266
and diabetes, *118-119
and glucose tolerance, 300, 301-302
and glucose tolerance tests
and plasma glucose, insulin, and free fatty acids, *252
and hyperlactic-acidemia, *118
and nicotinic acid, *786

EYE
and clofibrate treatment, 285-291
retina. *See* Retina.

F

FAJANS-CONN CRITERIA, 303

FAMILY HISTORY, 487
and age of diabetes onset, *580
and congenital anomalies, 471-477
and diabetes and acromegaly, 44
of diabetic children, 238
and glucose tolerance in siblings of juvenile diabetics, *249
and glycogen storage disease, *248
and hereditary diabetes, *582
and hypercholesterolemia with xanthomatosis, *642
and hypermethionemia, 284
of Indian diabetics, 671
of insulin-resistant diabetics, 446
and maturity-onset diabetes, *117
of South African diabetics, 164
and study of obesity, diabetes and pancreas function in children, 238-242
and Turner's syndrome, *119

FAT
assimilation
and pancreatectomy, *183
depot
and tumors, 390
dietary
and vascular disease, 673
distribution patterns
in diabetics and nondiabetics, 478-486
excretion
and diabetic diarrhea, 861

FAT CELLS
ghosts
metabolism, *707

FATTY ACIDS
of adipose tissue
and tumors, 388
and body odor, 100
and carbohydrate and fatty acid metabolism of rat diaphragm, *122
dietary
and thrombosis and atherosclerosis, *185
free
and arginine, *640
and burns, *311
and coffee, *439
and diabetes and obesity, 759-771
and diabetic pregnancy, *871
and epinephrine, 421-426
and ethyl-p-chlorophenoxyisobutyrate, *706
and feeding frequency, *706
and glycogen storage disease, *314
and growth hormone, *184
in infants of diabetic mothers, *871
and insulin and glucose uptake, 398-400
and ketones, *180-*181
metabolism and obesity, *712
and nicotinic acid, *786
and pancreozymin, *244
release, *707
response to glucose, *583
uptake by muscle in acromegalics, 390
and insulin secretion, *502
medium-chain, 74
medium- and long-chain
and insulin and ketone responses, 96-99
metabolism
and zinc, *711
nonesterified
and growth, 555
and hypertension, *708
metabolism and nonepinephrine infusion, *585
and sodium salicylate, *439
in starved and re-fed rats, *186
and prediabetes, *438-439
of rat brain and sciatic nerve in alloxan diabetes, 556-560
transport
and nicotinic acid, *244

FETUS
and anti-insulin serum, *707
blood glucose during labor, *120
blood glucose and insulin relationships, *789
death
and diabetes, *871
and gestational diabetes, *872
insulin metabolism, 409-415
and maternal insulin, *870
and maternal synalbumin insulin antagonism, *707
pancreas
insulin content, *585
monamines, *57
rat
pancreatic insulin content, 268-271

FIBROBLASTS
and growth hormone and insulin, *314

FLUORESCENCE ANGIOGRAMS
and study of cotton-wool spots in diabetic retinopathy, 692-703

FLUORIDE, 302

6-ALPHA-FLUOROPREDNISOLONE
and growth of children with adrenal virilism and Addison's disease, *247-*248

FOOD INTAKE
and diabetes onset, *869
and glucagon, 749-750

FRUCTOSE
and glucose tolerance, 259
and insulin secretion, *581
intolerance
and glycogen storage disease, 758
and ketone body production, *186
and pancreas beta-cell metabolism, *58

G

GALACTOKINASE
-deficiency in newborns, *123
and insulin mobilization, *708

GALACTOSE
and insulin release
and galactokinase deficiency, *708
and insulin secretion, *581
and ketone body formation, *186

GALACTOSURIA
and galactokinase deficiency, *123

GALLBLADDER
and diabetes, *440, *706
immunoreactive insulin, *182-183
size
and diabetes, 493-498

GANGRENE, 429

GASTRIN
and insulin release, *59, 397

GASTROENTEROPATHY
and swallowing disorder, *710

GASTROINTESTINAL TRACT
and diabetic diarrhea, 858-865
dialysis
and coma, *124
diseases
and diet therapy, 391

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

emptying rate
and blood glucose levels, *311
and glucose tolerance in thyroid disease, *246
enteric factors
and insulin release, 381-385, 733-738
and glucose absorption
and insulin, *248
gut loop material
insulinogenic effect of, *579
of invertebrates
and insulin-producing cells, *59
jejunal biopsy
and diabetic diarrhea, 862-865
malabsorption
and fatty acids, 74
and pellagra, 833
and plasma insulin response to protein, 527
and reactive hypoglycemia, *504
secretions
and insulin, *313
small bowel motility in diabetics, *642

GENETICS
and diabetes and hypothyroidism, *313
and leukocyte phosphorylase and amylo-1, 6-glucosidase deficiency, *313-314

GIGANTISM
cerebral, *710-711

GLIBENCLAMIDE
and insulin secretion, *442

GLOMERULOSCLEROSIS
in dogs, 456
and insulin immunization in guinea pigs, *788-789

GLUCAGON
and amino acids, *504
assay, 628, *712
and blood amino acids, 748-754
and carbohydrate synthesis and liver enzyme activity, *502
clearance, *180
and cyclic AMP, 797-803
and diabetes detection, *872
-enhanced lipolysis
and insulin, *709
and free fatty acid release, *707
and gluconeogenesis, *708
and glucose metabolism of islets of Langerhans, *247
and glycogen storage by beta cells, *118
hepatic effects of, 798-803
and hepatic urea production, 728
immunoassays
and pancreas islet studies, *643
and insulin
and liver, 724-731
and insulin reserve
in chemical and early overt diabetes, 679-685
insulin response to, 216-223, 622
and insulin response of perfused rat liver, *181-*182
and insulin secretion, *581, *870
and neutral red and imidazole, *442
and I-131 insulin degradation, 551-555
and liver amino acid transaminases, *501
and muscle, 803-804
and 5-nucleotidase, *58-59
of pancreaticoduodenal vein
and hypoglycemia, 3, 5-7
release, 627-631
and hypoglycemic sulfonylureas, *252
from isolated islets of Langerhans, 381-385
and starvation, *640
secretion
and blood glucose, 11-17
and glucose, 1-9
and serum free fatty acids, *789
synthetic, *585

GLUCOCORTICOIDS
and 3′,5′-AMP phosphodiesterase, *442
and gluconeogenesis, *643
and hyperglycemic coma, 102
and insulin secretion, *580, *582

GLUCOKINASE
and glucose tolerance, 257-261

GLUCONEOGENESIS
and alcohol, *642
control, *708
and cyclic AMP, 802-803, 810
and epinephrine and glucocorticoids, *643
and glucagon, 11
and Leigh's encephalomyelopathy, *118
and pregnancy, *870
regulation by malonate and malonyl CoA[1], *249

GLUCOSAMINE
in umbilical cord jelly, *442

GLUCOSE
and absence of response to physiologic levels of serum insulin, 397-401
absorption and utilization by meal-fed and nibbling rats, *503
and adenosine triphosphate levels of pancreas beta cells, 509-515
and adrenaline secretion, *316
and beta-cell metabolism, *58
and cerebral metabolism study, *123-124
conversion to carbon dioxide
and tumors, 389
conversion to fatty acid
and tumors, 389-390
and diabetic ketosis, 781-785
and diabetogenic action of streptozotocin, 463
disappearance rate
in chemical and early overt diabetes, 681, 682, 689, 690
and repeated glucose administration, 232-236
disposal rate
in infants of diabetic mothers, *871
during oral glucose tolerance tests and cortisone-glucose tolerance tests, 572
and glucagon release, 1-9, 629
-glucagon-tolbutamide test, 488, 490
hepatic threshold, *788
infusion
and insulin response in normals and diabetics, 273-279
ingestion
in glycogen storage disease, 755-758
and insulin and glucagon release, 381-385
and insulin release, *245
and enzymes, *117
and insulin response, *183
and atropine, *710
and calcium, *315
and myotonic dystrophy, *246-*247
and progestin, 146-151
in steroid stress diabetes, *640
intolerance
and growth hormone levels, *869-870
and hormones, *317
in infants, *181
and liver cirrhosis, *313
and renal failure, *188
and uremia, *442
and liver alpha-glycerophosphate, *181
loading
and acromegaly, *705
dosage by weight and height, 308-310
in fed and starved rats, 258-259
fetal response to, 410
and thyrotoxicosis, 633-638
metabolism
and azathioprine, 109
in brain, *579
and manganese, 561, 566
in newborn infants, *440
and pancreatectomy, *183
oxidation
and insulin, 545-549
plasma insulin response to
and alcohol, 517-521
and MJ 1999, 263
reabsorption
and pyelonephritis, *59
response
and correlation between weight and basal FFA, glycerol, and immunoreactive insulin, 763
and infants of diabetic mothers, *643
-responsive insulinoma, *317

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

and serum magnesium and potassium, *712
tolerance
and burns, *311
and carbon monoxide poisoning, *57
and coffee, *439
and cystic fibrosis, *438
diabetic changes in, 487-491
diurnal variations in, *709
and factors other than diabetes, 300-301
and growth hormone secretion, 402-408
and hyperlipoproteinemia, 739-746
and hypertension, *707-708
and hypertriglyceridemia and obesity, *439-440
and hypocalcemia, *184
and insulin insensitivity, *249
and insulin response to glucagon, 219-222
and ischemic heart disease, *640-641
and kwashiorkor, *438
and liver glucokinase, 257-261
and manganese, 561, 566
and nonischemic cardiac disease, *245
and oral contraceptives, *317-318
and pancreatic duct ligation, *316
and plasma insulin and corticosteroid therapy in rheumatoid arthritis patients, *317
and pregnancy, 146
in rats with growth hormone-secreting tumors, 621-622
tolerance tests
of Athabaskan Indians, 29-30, 32
and caffeine, *641
and diazoxide and trichlormethiazide, 21-23
and exercise, *252
and glucagon, *872
and glucose doses, *872
and glycerides, cholesterol, and insulin response, 705
and infants of diabetic mothers, 143-144
and islet cell carcinoma treated with streptozotocin, 676
and maturity-onset diabetics, 274-279
as measure of insulin reserve, 679-685
in newborn, *251
in obese children, 239-241
and obesity, *313
and oral glycerol loading, *786
and plasma free fatty acid and glycerol concentration, 761-762
in prediabetes, 487, 488
in pregnancy, 153-162, *712, *872
and protein, 525
reproducibility, *710
serum insulin and glucagon during, *253
standardization of, 299-306
and starvation and refeeding, 258
and tic douloureux, *312
and zinc deficiency, *57
turnover
and D-glucose or D-ribose, 820-827
uptake
and albumin, *119
and diabetes and obesity, *312
and Dilantin, 105-106
and growth hormone and insulin, *314
and potassium, *181
and streptozotocin, 460
urinary
and anthrone reagent test, *253
utilization
and fasting, *184
and hexose, *316

GLUCOSE FATTY ACID CYCLE, 236

D-GLUCOSE
intestinal absorption of, *248

GLUCOSE-C-14
conversion to glucose-C-14-O_2
and insulin, 545-549
disposal in normal rat, *788

GLUCOSE-C-14-O_2
conversion from glucose-C-14
and insulin, 545-549

GLUCOSE-I-C-14
oxidation, *60

GLUCOSE-U-C-14
and insulin-like activity assays, 79

GLUCOSE-6-PHOSPHATASE, *180, 798-803
deficiency
and glycerol, *186
and glucose phosphorylation, *786
and streptozotocin, 678
and von Gierke's disease, *252

GLUCOSE-6-PHOSPHATE
and adenosine triphosphate assay, 510
glucose phosphorylation to, 257
and insulin secretion, *250
metabolism
in type I glycogen storage disease, 757-758
in obese hyperglycemic mice, *58
in skeletal muscle
and insulin sensitivity to, *641

GLUCOSE-6-PHOSPHOGLUCONATE
and insulin secretion, *250

GLUCOSIDASES
fungal
and glycogen storage disease, *248

GLUCOSURIA
and streptozotocin diabetes, 608

GLUTAMATE
and kidney gluconeogenesis, *316

GLUTATHIONE
and blocking of streptozotocin-induced diabetes, 460, 464
-insulin transhydrogenase of human kidneys, 176-178

GLYCERIDES
fasting
and blood sugar, *705

GLYCEROL
levels
and obesity and diabetes, 764-771
and liver glycogenoses, *185-*186
metabolism
and liver glycogenoses, *252
release
and ketones, *180-181
utilization
and alcohol, *642

GLYCINE, 195-196
and blocking of streptozotocin-induced diabetes, 459
and glucagon, 751, 753
in pork and human insulin, 210

GLYCOGEN
assays
in pancreas beta cells, *118
deposition in pancreas cells, *869
loading
and diabetes diagnosis, *786
and phenformin, 613-616
storage
in hepatoma, *180
in meal-fed and nibbling rats, *503

GLYCOGEN STORAGE DISEASE, *441
and acid maltase, *312
and diazoxide, *121
and fungal glucosidases therapy, *248
and glycerol metabolism, *252
and growth, *314
and heredity, *313-314
and insulin secretion, 755-758
and liver carcinoma, *188
and streptozotocin, 678
and studies on leukocyte brancher enzyme activity, *248

GLYCOGEN SYNTHETASE
and cyclic AMP, 802, 810

GLYCOGENOLYSIS
and glucagon, 11
and glucagon and insulin, 727-728

GLYCOGENOSIS. *See* Glycogen storage disease.

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

GLYCOSURIA
and home-testing, *581
and insulin-resistant diabetes, 446-449
in South African survey, 851-852

GOLDEN HAMSTER
adipose tissue metabolism
and hypoglycemia, hyperinsulinemia, and islet-cell tumor, *709

GOOSEFISH INSULIN SECRETION GRANULES, 129-136

GROWTH
and adipose tissue cellularity, *788
and malnutrition, 231

GROWTH HORMONE
and acromegaly, *184
albumin-bound
and short asthmatic children, *244
and arginine, *583
assays, 147
and Turner's syndrome, *119
and cerebral gigantism, *710-711
and collagen and chondroitin sulfate synthesis in bone organ cultures, 280-283
deficiency
and juvenile diabetes onset, *707
and normal growth, *316
and sexual ateliotic dwarfism, *249-250
and glucose intolerance, *317
and glucose tolerance, 402-408
and glycogen storage disease, *314
and insulin
and mouse fibroblasts, *314
and insulin degradation, 550-555
and insulin secretion, *119, *502
and pregnancy, *249
and juvenile diabetes, *640
and kidney gluconeogenesis, *316
and lactation, *185
and maturity-onset diabetes, *869-870
release
and hyperglycemia, *641
and propanolol, *182
and renal failure, *188
response to glucose loading
and acromegaly, *705
-secreting tumor
and glucose metabolism by adipose tissue, 387-390
and insulin storage and release, 619-624
secretion
and corticoid administration, *186
and hypothalamic stimulation, *181
and nocturnal sleep, *318
and ovarian dysgenesis and Turner's syndrome, *582

γ-GUANIDINO-BUTYRAMIDE, *786-787

GUINEA PIGS
and streptozotocin diabetes, 542-544, 606-611

GUANIDO COMPOUNDS, *787

H

HALF-CYSTINE
and glucagon, 751, 753

HASHIMOTO'S THYROIDITIS
and diabetes
and genetic studies, *313

HB 419. *See* Glibenclamide.

HEART
aorta
cholesterol-ester formation in, *251

HEART DISEASE
congenital
and nondiabetic and diabetic pregnancies, 474
coronary
and diabetes, 484
and hyperglycemia, *872
ischemic
and glucose tolerance, plasma lipids, and serum insulin studies, *640-641
nonischemic
and glucose tolerance and immunoreactive insulin response, *245
and sucrose intake, *184
in survey of Pima Indians, 472
and vascular disease, 429
in young Indian diabetics, 671

HEMODIALYSIS
and hyperosmolar nonketotic coma, 114

HEMOLYSIS
immune
inhibition assay, 196-198

HEMOLYTIC DISEASE
and hypoglycemia, *711

HEMORRHAGE
capillary
in scorbutic guinea pigs, 522, 541
retinal
and cutaneous capillary resistance, *708-709
and retinopathy
and Atromid therapy, 290

HEPARIN
and lipolytic activity, 562-565

HEREDITY
and blood glucose regulation, *180
and diabetes, *117 ,*124, *869
and age of onset, *580
and Down's syndrome, *786
and mode of transmission, *582
and diabetic "marker," *872
and glycogen storage disease, *248
and hypercholesterolemia with xanthomatosis, *642
and lactose malabsorption, *642
and Leigh's encephalomyelopathy, *118
and obesity
and hyperinsulinism, *579
and Turner's syndrome, *582

HEXOKINASE, 257
and 2-deoxy-D-glucose, 84

HEXOMONOPHOSPHATE SHUNT, *117, 595

HEXOSE
and glucose metabolism, *316

HISTIDINE
and glucagon, 751, 753
in pork and human insulin, 210

HOMEOSTASIS
metabolic
and juvenile diabetes, *640

HORMONES
and adenosine triphosphate conversion to adenosine 3',5'-monophosphate, *125
and blood sugar, 300-301
and diabetes, 484-485
and glucose intolerance following hypoglycemia, 317
and glycogenolysis, 727-728
polypeptide
and insulin release, 385
serum luteinizing
radioimmunoassay in normal children, *580
sex
and diabetes onset, 485
and urea production, 728

HYALINE MEMBRANE DISEASE
blood vessel studies, *59

HYAMINE, 388

HYDRAZINES
and hypoglycemia
and monoamine oxidase inhibitors, 538-540
and plasma glucose, insulin and free fatty acid, 538-540

HYDROCHLOROTHIAZIDE
diabetogenic effects, *440-441
and glucose tolerance
and serum potassium levels, 24-25
and adrenal hyperplasia
and growth, *251-*252
and serum disappearance rates, 148
and growth of children with adrenal virilism and Addison's disease, *247-*248

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

HYDROGEN SULFIDE
and pancreas islets, *57

β-HYDROXYBUTYRATE
and insulin secretion, 99

HYDROXYMETHYL TOLBUTAMIDE
and 2-deoxy-D-glucose uptake, 90

5-HYDROXYTRYPTAMINE
cytochemistry, *247
pancreatic, *57

HYPERAMINOACIDEMIA
and glucagon response to
and hyperglycemia, 6
and glucagon secretion, *504
and hyperglucagonemia of starvation, 720

HYPERCHOLESTEROLEMIA
and xanthomatosis, *642

HYPERCORTICISM
and corticotrophin stimulation, *311

HYPERGALACTOSEMIA
and galactokinase deficiency, *123

HYPERGLYCEMIA
and amino-acid-induced insulin secretion
and glucagon, *504
and beta adrenergic antagonist, *501
and brain glucose metabolism, *579
and burns, *710
and diazoxide and trichlormethiazide, 19-26
and Dilantin, 101-106
and fat and ketone metabolism
and obesity, *712
and growth hormone release, *641
and glucagon, 750
and glucagon response to amino acids, 5-7
and glucagon secretion, 1, 2-5
and growth hormone, 550-555
and heart disease, *872
and hyperosmolality, *247
and insulin-resistant diabetes, 446-449
and insulin response to glucagon, 221
and intravenous glucose in infants, *181
in maturity-onset diabetics
and insulin response, 273-279
in nondiabetic hyperthyroid patient, *252-*253
nonketotic
and neurological dysfunction, *503
and obesity
and glucose metabolism, *58
and pancreaticoduodenal vein glucagon, 4
in Seneca Indians, 39
in South African survey, 840-856
and streptozotocin, 459
and streptozotocin diabetes, 608
temporary, 300
and thiazide diuretics, *440-441
and 5-thio-D-glucopyranose, *441
and tolbutamide, 93
and Turner's syndrome, *119
and vascular disease, *873
and virus-induced diabetes, *314

HYPERINSULINEMIA, 153
and acromegaly, *705
and adipose tissue metabolism, *709
and carbohydrate-induced hyperlipoproteinemia, *313
and erythroblastosis fetalis, *179-180
and glibenclamide, *442
and hypoglycemia
and myocardial infarction, *439
and obesity, 240, *579, *581
and pancreozymin, 397
and placental lactogen, 160
and plasma insulin Sephadex fractions, 837, 839
tolbutamide-induced
and methandienone, 520
in tumor-bearing rats, 623

HYPERKALEMIA
and glucose and insulin infusion, *712

HYPERKETONEMIA
and ketoacidosis, 99

HYPERLIPEMIA
fat-induced
and lipoprotein lipase, *122
and heparin, 562-565

HYPERLIPOPROTEINEMIA, *441
carbohydrate-induced
and hyperinsulinism, *313
and immunoreactive insulin, glucose tolerance, and carbohydrate inducibility, 739-746
and nicotinic acid therapy, *244

HYPERMETHIONINEMIA, 100, 284

HYPEROSMOLALITY
and diabetes, *583
and hyperglycemia without ketoacidosis, *247

HYPERPYRUVEMIA
and infection, *246
and obesity, *313

HYPERSOMATOTROPISM
and pancreas islet function, 614-624

HYPERTENSION
and asymptomatic diabetes, *707-*708
and hyperglycemia, *872
and pituitary ablation, *245
and vascular disease, 429

HYPERTRIGLYCERIDEMIA
and acromegaly, 48
and lipoprotein lipase in alloxan diabetic rabbits, *251
and obesity, *179
and glucose and insulin levels, *439-440
and uremia, *438

HYPOCALCEMIA
and insulin inhibition, *183-*184

HYPOCHOLESTEROLEMIA
and dietary fatty acids, *185

HYPOGLYCEMIA
and acute pancreatitis, *317
and adipose tissue metabolism, *709
adrenaline response to
in infants of diabetic mothers, *187
and alcohol, *642
and obesity, *244
and beta-adrenergic blocking agents, 266
and erythroblastosis fetalis, *179-*180
factitious, *318
and glucagon secretion, 1, 2-5
and glucose intolerance
and hormones, *317
and growth hormone secretion, 402-403, 550-555
and hemolytic disease in newborn, *711
and hydrazine group
and monoamine-oxidase inhibitors, 538-540
and hyperinsulinism
and myocardial infarction, *439
idiopathic, *709
and infant mortality, *315
in insulin-injected newborn calves, *312
irreversible
and alcohol and insulin, *179
and ketone bodies, 96-99
and manganese, 561, 566
neonatal
and maternal chlorpropamide therapy, *188
and pancreaticoduodenal vein glucagon, 3, 5-7
and plasma 11-oxysteroid levels, *508
and progesterone, 149-150
reactive
and gastrointestinal factors, *504
and streptozotocin, 459, 675, 676
and streptozotocin diabetes, 608
and sulfonylurea therapy, *244
and surgery, *185
tolbutamide-induced, 13-15

HYPOKALEMIA
and coma and quadriplegia, *581

HYPONATREMIA
and diabetic pregnancy, *120

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

HYPOPHYSECTOMY
and growth hormone response, 405
and placental lactogen, 160
and skin capillary resistance, *438

HYPOPHYSIS
and Staub-Traugott effect, 236

HYPOPITUITARISM
and absence of Staub-Traugott effect, 236
and placental lactogen, 162

HYPOTENSION
and acromegaly, *246
and benzothiadiazine compounds, *584-585
and diazoxide, 25
and Dilantin, 105
disease
and endocrine tests, *503
and growth hormone secretion, *181, *318, *641
nitroprusside-induced, 26
and regulation of food intake, *251

HYPOTHERMIA
and hyperosmolar nonketotic coma, 114

I

IMIDAZOLE
and insulin secretion, *442

IMMUNE HEMOLYSIS, 193-205

IMMUNOLOGY
and insulin activity, 193-205

INDIANS
and diabetes, hyperglycemia and glycosuria, 840-856
and vascular disease, blood lipids, and diabetes, 670-673

INFANTS
and body odors, 100
congenital anomalies
and maternal diabetes, 471-477
of diabetic mothers, 409
and glucose disposal rate and free fatty acid concentrations, *871
and glucose tolerance tests, 143-144
and response to glucose, tolbutamide and leucine, *643
and urinary catecholamines, *186-*187
and erythroblastosis fetalis
and hypoglycemia and hyperinsulinism, *179-*180
and galactokinase deficiency, *123
and glucose tolerance tests, *251
and hyaline membrane disease, *59
and hypoglycemia, *315
and maternal chlorpropamide therapy, *188
and serum insulin radioimmunoassay, *60
mortality
and maternal diabetes, *871
newborn
and glucose metabolism, *440
and glucose tolerance study, *181
and hemolytic disease and hypoglycemia, *711
and idiopathic transitory diabetes, *125
and lipoprotein lipase, plasma free fatty acids and glucose, *441
premature
and hyperosmolality and diabetes, *583
and serum-insulin response to glucose and amino acids, *440

INFECTION
and blood pyruvate and lactate, *246
and diabetes, *180
with encephalomyocarditis virus
and diabetes syndrome, *314
and insulin-resistant diabetes, 450

INSULIN
action
and cyclic AMP, 797, 806, 809
and streptozotocin, 459-465
and synalbumin insulin antagonist, *580
alpha and beta chains
and binding study, 193-205
production by isolated rat islets, *585
and 3',5'-AMP phosphodiesterase, *442
antagonism
and glucagon, 724-731
and glucocorticoids, *582
and uremia, *787
antibody
and proinsulin, 838-839
antilipolytic effect on adipose tissue, *182
assays
blood-sugar-lowering method in rabbits, 830
comparison studies, 828-833
mouse convulsion method, 832
mouse hemidiaphragm, 832
and proinsulin, 278
and atherosclerosis, *187
beef and pork, *706
"big" and "little," *869-870
binding
and juvenile diabetes, *642
biosynthesis, *187-*188, *314-*315, *708
and proinsulin, *312
and blood glucose
in fetus and mother, *789
and bovine proinsulin, 598-605
and brain glucose metabolism, *579
and burns, *311
capybara
and neutralization by guinea pig antibodies to insulin, 212-215
and cardiovascular lesions
in diabetic rats fed an atherogenic diet, 225-230
chicken, *580
and collagen and chondroitin sulfate synthesis in bone organ cultures, 280-283
crystalline chicken
in rats and fowl, *579
crystalline human
preparation and partial characterization of, 206-211
and cyclic 3',5'-AMP phosphodiesterase, *583
deficiency
and anti-insulin serum studies, *707
degradation
and growth hormones, 550-555
delivery rate into plasma
and diabetes, *584
and 2-deoxy-D-glucose transport, 86-87
dependence
and tolbutamide, 84-93
and diabetes and acromegaly, 44-46
and diaphragm and adipose tissue of obese mice, *584
and Dilantin, 101-106
disappearance rate
in juvenile and maturity-onset diabetics and nondiabetic subjects, 653-659
dosage
and oral contraceptives, *318
and pituitary ablation, *245
effects on newborn calf, *312
in fetal ovine pancreas, *585
and gastric secretions, *313
and glucagon enhanced lipolysis, *709
and glucokinase activity, 257
and glucose oxidation, *60
and glucose utilization
in meal-fed and nibbling rats, *503
and glucose-C-14 conversion, 545
and glycogen storage disease, *314
and growth hormone
and mouse fibroblast cells, *314
and heart muscle RNA metabolism, *125
and heavy metals, *56-57
and hyperosmolar coma, 115-116
hypersecretion
and reactive hypoglycemia, *504
immunization
and "diabetic-like" glomerulosclerosis in guinea pigs, *788-789
immunoassays, 830-832
by back-titration, 660-669
dextran-coated charcoal, *580
double-antibody, *502
immunologic and biologic activities of, 392-395

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

immunology conformation and biological activity of, 193-205
immunoreactive
biosynthesis, *124-125
half-life of, *188
and hyperlipoproteinemia, 739-746
and insulin-like activity, 65-73, 75-82
and nonischemic cardiac disease, *245
in normal subjects, chemical diabetics, and overt diabetics, 683, 684
and tolbutamide and buformin, *56
-induced hypoglycemia
and glucagon secretion, 2-5
inhibition, *253
and pancreozymin, 397-401
insensitivity, *869-870
and glucose tolerance, *249
and plasma insulin Sephadex fractions, 837
and intestinal glucose absorption, *248
and kidney gluconeogenesis, *316
labeling, 51-53
and latent diabetes, *186
levels
and hypertriglyceridemia and obesity, *439-440
-like activity, *57-58
by fat pad assay and immunoreactive insulin, 65-73, 75-82
and starvation, *122
and lipolysis
and potassium, *181
and liver amino acid transaminases, *501
and liver palmitate-1-C-14 metabolism, *315
localization in mouse tissues, *581
metabolism
fetal, 409-415
and kidneys, 176-178
misuse
and factitious hypoglycemia, *318
mixed bovine/porcine
and insulin-binding capacity, *788
and nerve-function, *182
in pancreas beta cells of alloxan diabetic rabbits, 138-144
and pancreatectomy
and effect of D-glucose or D-ribose on glucose turnover, 820-827
of pancreatic islet tissue
and alloxan, 589
of nonpregnant, pregnant, and postpartum rats, 268-271
and plasma glucagon, 12-13
and plasma growth hormone response, *441
producing cells in invertebrates, *59
and ^{32}P radioactive phosphate incorporation, *584
radioimmunoassays
and bile acids, *183
modification of Hales and Randle procedure, *582
and rat liver insulinase, *250
release, 631
and amino acids, *641
and arginine, *641
and cyclic AMP, 805-806
and enzymes, *117
and erythroblastosis fetalis, *180
and galactokinase deficiency, *708
and gastrin, *59
and glucagon, *247
and hypocalcemia, *183
and inhibition, *643
and intestinal factor study, 733-738
from isolated islets of Langerhans, 381-385
and monolayer cultures of neonatal hamster pancreas, *503
and obesity, *708
and oral hypoglycemic agents, *252
and pancreatic islet inhibitor, *441
and pancreas islets, *501
by rat islets of Langerhans, *250
and secretin, *502
and serotonin, *187
and stable diabetes, 491
and starvation, *640
and tolbutamide and its metabolites, 530-536
reserve
and diabetes, 500
and glucagon, 679-685
and tolbutamide, 686-690
resistance, *584
and diabetes, *179
and insulin withdrawal, 445-453
and obesity and oral hypoglycemics, *246
and pregnancy, 153-162
and uremia, *58, *188
response
and chlorpropamide, *873
to glucagon, 216-223
to glucose, *183, *710
in glucose tolerance survey, *705
and medium and long-chain triglycerides, 96-99
in pregnancy, 153-162
in steroid-stress diabetes, *640
response to glucose
and acromegaly, *705
and Turner's syndrome, *119
response of perfused rat liver
and glucagon and 3',5'-AMP, *181-*182
and retinopathy, 778-780
-secreting insulinoma, *317
secretion, *245, *869
and adrenocorticotropin and glucocorticoids, *580
and coffee, *439
in diabetic mice, *248-*249
in diabetics, and secretin, *317
and diazoxide and trichlormethiazide, 19
and ethyl alcohol, 517-521
and fasting, *119-120
and glucagon, 724-731
and glucose-6-phosphate and glucose-6-phosphogluconate in islets of Langerhans, *250
and glucose tolerance in thyroid disease, *246
and glibenclamide, *442
and glycogen, *118
and glycogen storage disease, 755-758
and growth hormone, *119, *502
and hypoglycemia, *317, *709
inhibition by aryl-substituted secondary aminoethanols, 262-266
and islet cell tumors, *711
of isolated goosefish islet granules, 129-136
and isolated pancreas islets, *581
and medium-chain triglycerides, *246
and metabolism, *870
and methacholine, *502
and monoamine oxidase inhibitors, 417-419
and myotonic dystrophy, *246-*247
and neutral red and imidazole, *442
and obesity, *184
and parasympathomimetic agents, *316-317
and prednisolone, *582
and pregnancy and chorionic growth hormone, *249
of rabbit pancreas, *315
and sexual ateliotic dwarfism, *249
and starvation, 722
and tris aminomethane, *585
and xylitol, *580-581
secretion granules, *123
selection
and blood glucose analysis, *502
sensitivity
and age and body weight, *181
and glucose-6-phosphate pools in skeletal muscle, *641
in progestin study, 147
and serum free fatty acids, *789
and serum magnesium and potassium, *712
and starvation, 719, 720
storage and release
and growth hormone-secreting tumors, 619-624
and surgery, *185
tolerance
and growth hormone, 403-404
tolerance tests
and alcohol, *179

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

and cortisone, *870
and work-induced growth of skeletal muscle, *314

I-131 INSULIN
and alloxan, *503
and insulin-like activity assays, 68-69
metabolism
and insulin metabolism, 653
placental transfer of
and fetal insulin metabolism, 409-415

INSULINEMIA
and adrenalectomy, *187

INSULINOGENIC INDEX, 23

INSULINOMA
glucose-responsive, *317

INTESTINAL FACTOR
and insulin release
and rat pancreas-small gut preparation, 733-738

ISLETS OF LANGERHANS
and encephalomyocarditis virus, *180
glucose metabolism, *247
and glucose-6-phosphate and 6-phosphogluconate concentration
and insulin secretion, *250
and hypoglycemia and hemolytic disease in newborn, *711
and insulin and glucagon release
effect of enteric factors, 381-385
and starvation, *640
and insulin release, *250, *501
and insulin release inhibition, *643
isolation of, 129
and juvenile diabetes, 683
and pancreatic duct ligation, *316

ISOCITRIC DEHYDROGENASE
and alloxan, 589-596

ISOLEUCINE
and glucagon, 751, 753
in pork and human insulin, 210

ISOPROTERENOL
and glucagon release, 630

ISOTHIOCYANATE, 195

J

JAPANESE
and retinopathy and diabetes, 773-780

K

KETOACIDOSIS
and diabetic coma, *643
and insulin-resistant diabetes, 446-449
in nondiabetic hyperthyroid patient, *252-*253

KETOGENESIS
and cyclic AMP, 810
and obesity, *712

KETONE ACIDS
and adipose tissue metabolism, *180-181

KETONE BODIES
and epinephrine, 421-426
formation
and epinephrine and triamcinolone, *643
metabolism, *125
and norepinephrine infusion, *585
response
and medium and long-chain triglycerides, 96-99
in starved and re-fed rats, *186

KETONEMIA
diurnal variations, *60

KETONURIA
and streptozotocin diabetes, 608

KETOSIS
and hyperglycemia, *182, *869
and juvenile diabetes, 421-426
and multi-channel chemical analysis of serum, 781-785
and obesity, *179

KIDNEY
basement membrane
and diabetic microangiopathy, 455-458
and proteinuria, *120
and benzothiadiazine compounds, 23-24
blood flow
and thiopental, 414
cyclic 3',5'-AMP phosphodiesterase
and insulin, *583
disease
and guanido compounds, *787
and serum growth hormone and glucose intolerance, *188
failure
and hypertriglyceridemia, *438
function
and Dilantin, 105
glomerulonephritis
in South African diabetic, 165
gluconeogenesis
and growth hormone, insulin, thyroxine, and cortisone, *316
glucose distribution and related metabolites in, *184
glutathione-insulin transhydrogenase of, 176-178
glycosuria
and islet cell carcinoma, 675
and insulin, *503
and insulin degradation, 554-555
lesions
in genetically diabetic mice, *584
and insulin immunization in guinea pigs, *788-789
and streptozotocin therapy, 675-678

KREBS CYCLE
and cyclic AMP, 803
and hyperosmolar coma, 114

KWASHIORKOR, 231, 470
and glucose and starch tolerance, *438
and pellagra, 833

L

LACTASE
deficiency, *642
and cystic fibrosis, *438

LACTATE
and glycerol, *186
and phenformin, 613
and tolbutamide and buformin, *56

LACTATION
and growth hormone, *185
and medium-chain triglycerides, 74

LACTIC ACIDOSIS
and beta adrenergic antagonist, *501

LACTOGEN
human placental
and carbohydrate tolerance, 153-162

LACTOSE
intolerance
and cystic fibrosis, *438
malabsorption, *642

LESIONS
of alimentary tract, 391
capillary
and ascorbic acid deficiency, 541
cardiovascular
and diet and insulin study, 225-230
Leigh's encephalomyelopathy, *118
and zinc deficiency, 95

LEUCINE
and glucagon, 751, 753
in pork and human insulin, 210
response
in infants of diabetic mothers, *643

C-14 LEUCINE
incorporation by insulin, *585

LIPIDOSIS
and diet and insulin, 229

LIPIDS
of goosefish insulin secretion granules, 130
metabolism
and pregnancy, *870
of rat brain and sciatic nerve in alloxan diabetes, 556-560

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

LIPOCYTES
and cyclic 3',5'-AMP formation, *125

LIPOGENESIS
in arterial tissue
and diabetes, *253
and islet implants in mouse, *253
and malonate and malonyl CoA[1], *249

LIPOLYSIS
and acromegaly, *184
in adipose tissue
and tumors, 388, 390
and epinephrine, *585
glucagon-enhanced
and insulin, *709
and heparin, 561-565
and insulin, *182
and placental lactogen, 162

LIPOPROTEIN
synthesis
and obesity, *179

LIPOPROTEIN LIPASE
and chylomicron hydrolysis, 564
and cyclic AMP, 810
and hyperlipemia, *122
and hypertriglyceridemia in alloxan diabetic rabbits, *251
in women in labor and newborns, *441

LIVER
alpha-glycerophosphate
and glucose formation, *181
amino acid transaminases
and glucagon and insulin, *501
and antagonism between effects of insulin and glucagon, 724-731
artery ligation
in depancreatized dogs, *184-*185
carbohydrate synthesis and enzyme activity
and glucagon, *502
carcinoma
and glycogen storage disease, *188
cholesterol
and diet, *183
and medium-chain triglycerides, 74
cirrhosis
and carbohydrate metabolism, *313
and diabetes, *642-643
and insulin secretion, *246
cyclic 3',5'-AMP phosphodiesterase
and insulin, *583
disease
and blood glucose and ammonia, *502
fat and ketone metabolism
and obesity, *712
fatty
in diabetes and alcoholism, *60
free fatty acid release, *707
and glucagon
and epinephrine, 798-803
glucokinase
and biotin, *312
and glucose tolerance, 257-261
gluconeogenesis control, *708
and glucose disposal, *788
glucose release
and Dilantin, 106
glucose threshold, *788
glutathione-insulin transhydrogenase, 176
glycogen
and obesity, *244
in phenformin-treated mice, 616-617
and tolbutamide, *311
glycogen storage
and fasting, *119-120
glycogenolysis
and synthetic glucagon, *585
glycogenoses
and glycerol, *185-*186, *252
hepatoma
and glycogen storage, *180
and insulin degradation, 397-401, 554-555
of insulin-treated diabetic rats, 230
insulinase
and insulin, *250
in insulin-deficient rats, *120
ketone-body formation
and nonesterified fatty acids, *106
lipid metabolism
and alloxan diabetes, *787
lipids
and phenformin, 616-618
and obesity, *179
perfused rat
and fasting and glucose utilization, *184
and glucagon clearance, *180
urea formation and corticoids, *188
rat
and gluconeogenesis, epinephrine and glucocorticoids, *643
and regulation of brain glucose metabolism, *579
and streptozotocin, 542-543, 676-677
and tolbutamide, *311
triglyceride
and juvenile diabetes, 426

LUCERNE
and diabetes, 561, 566

LUNGS
disease
and Dilantin therapy, 101-106
among South African diabetics, 165
emphysema
and vascular disease, 429
and hyaline membrane disease, *59

LYSINE, 210
and glucagon, 751, 753

M

MALAYS
and diabetes, hyperglycemia, and glycosuria, 840-856

MALNUTRITION
and coca leaf chewing, 723
kwashiorkor, *438
and pancreas function, 470, 492

MALONATE
and regulation of gluconeogenesis and lipogenesis of pyruvate carboxylation, *249

MALONYL
and regulation of gluconeogenesis and lipogenesis of pyruvate carboxylation, *249

MANGANESE
and glucose tolerance, 561, 566

MANNITOL
and plasma insulin, *580

MANNOHEPTULOSE
and blocking of streptozotocin-induced diabetes, 459, 460
and glucose phosphorylation, 515
and insulin release, *501
and pancreas beta-cell metabolism, *58
and streptozotocin-induced diabetes, 464

D-MANNOHEPTULOSE
and glucose metabolism of islets of Langerhans, *247

MANNOSE
and insulin release, *250
and pancreas beta cell metabolism, *58

MAPLE SYRUP URINE DISEASE, 284

MARASMUS, 231, 470

MEGESTROL ACETATE
and mestranol, *318

MENOPAUSE
and correlation between fasting glycerides and blood sugar levels, *705

MENTAL ILLNESS
and juvenile diabetes, *122-123

MENTAL RETARDATION
and hypermethionemia, 284

6-MERCAPTOPURINE
and glucose uptake, 109

MESTRANOL
and megestrol acetate, *318

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

METABOLISM
adipose tissue
and zinc, *711
3',5'-AMP
and glucagon-insulin interaction, *182
and body odors, 100, 284
brain
and glucose, *123-124
carbohydrate
and cirrhosis of liver, *313
and cyclic AMP, 797-814
and fatty acids, *122
and oral contraceptives, *317-318
and tolbutamide and buformin, *56
and uremia, *58
and vitamin C, *122
carbohydrate and fat
and prediabetes, *438-439
and pyrazinamide, *708
carbohydrate and lipid
and 1-methyl-4-(3-methyl-5-isoxazolyl) pyridinium chloride and phenformin, 612-618
cyclic AMP, 799-801
2-deoxy-D-glucose, 84
fat and ketone body
and diabetes and norepinephrine, *585
in livers of obese hyperglycemic mice, *712
fatty acid and carbohydrate
and fatty acids, *122
glucose
by adipose tissue from rats bearing growth hormone-secreting tumors, 387-390
and age and body weight, *281
and alloxan diabetes and anti-insulin serum, *124
and diabetes, *502
and hexose, *316
and insulin, 400-401
of mammalian islets of Langerhans, *247
in obese hyperglycemic mice, *58
and pH and Co_2 concentration, *248
glucose and fat
and ketone acids, *180-181
glucose and insulin
and erythroblastosis fetalis, *180
and glucose intolerance in uremia, *787
glycerol
and liver glycogenosis, *252
insulin, *870
fetal, 409-415
and progestins, 150
of isolated fat cells, *707
ketone body, *125
lactate
and phenformin, *247
liver lipids
and alloxan diabetes, *787
and corticoids, *188
muscle glycogen
and nicotinic acid, *786
and overfeeding, 597
palmitate-I-C-14
and diabetes and insulin, *315
pancreas beta cell
and sulfonylureas, *58
and pregnancy, *870
pyruvate, *118
RNA
and insulin biosynthesis, *187-*188
tolbutamide
and alcoholism, *247

METALS
heavy
and pancreas, *56-*57, *60

METAPYRONE
and acromegaly, 47

METASOMATOTROPHIN DIABETES, 455-458, *871

METHACHOLINE
and insulin secretion, *316-317, *502

METHANESULFONANILIDE
and insulin secretion, 262-266

METHIONINE
and glucagon, 751, 753
malabsorption, 100

3-O-METHYL-D-GLUCOSE
and glucose utilization, *316

METHYL HISTIDINE
and glucagon, 751, 753

METHYL-METHIONINE, *188

1-METHYL-4-PYRIDINIUM CHLORIDE
and carbohydrate and lipid metabolism, 612-618

METHYLDOPA, 691

6-α-METHYLPREDNISOLONE, *186
and growth of children with adrenal virilism and Addison's disease, *247-*248

MICROANGIOPATHY
and basement membrane statistics in dog, 455-458

MICROSCOPY
of capillaries of juvenile diabetics, *119
of cardiovascular lesions, 228
electron
and diabetic neuropathy, *438
of muscle capillaries of South African diabetics, 166-175
light
of pancreatic B cells, 139-140
and pancreatic islet tissue, *118

MINERALS
chromium
and diabetes, 561, 566
cobalt
and pancreas islets, *56-57
and diabetes, 561, 566
zinc
deficiency, 95

MJ 1999
and insulin secretion, 262-266
and plasma insulin response, 264-266

MONOAMINE-OXIDASE
insulinogenic effect of, 417-419

MONOAMINE OXIDASE INHIBITORS
and glucose tolerance tests, 301
and hypoglycemia, 538-540

MONOAMINES
in endocrine pancreas, *57

N-MONOMETHYL-ACETAMIDE
diabetogenic effects of, *440-441

MORTALITY
and acute pancreatitis and hypoglycemia, *317
and diabetic coma and pancreatitis, *441
fetal
and diabetes, *871
and synalbumin insulin antagonism, *707
for male and female diabetics, 484
neonatal
and hypoglycemia, *315
and neonatal hyaline membrane disease, *59
and pituitary ablation, *245

MOUSE
and streptozotocin diabetes, 606-611

MUCOPOLYSACCHARIDE
production in diabetic and normal pregnancy, *442

MUNICH, GERMANY
diabetes detection drive in, *582

MUSCLE
capillary basement membranes
in normal subjects, diabetic and prediabetic patients, *504
and epinephrine and glucagon, 803-804
glycogen
and phenformin, 617
glycogen activity
and nicotinic acid, *786
heart
and RNA metabolism and diabetes, *125
phosphorylase kinase
and calcium, *316

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

skeletal
glucose-6-phosphate, *641
spasms
and hyperosmolar coma, 114
work-induced growth
and insulin, *314

MYOCARDIAL INFARCTION
angina pectoris
in young Indian diabetics, 672
in diabetic rats, 228-230
and glucose tolerance, 300
and hyperinsulinism with hypoglycemia, *439
of insulin-resistant diabetic, 450
and sucrose intake, *184

MYOTONIC DYSTROPHY
and insulin secretion, *246-*247
and plasma insulin Sephadex fractions, 836, 839

N

NAVAJO INDIANS
and diabetes survey, *121

NEOPLASMS
pancreatic
and angiographic detection, *709-710

NEPHROPATHY
in young Indian diabetics, 671-672
and vascular disease, 429

NERVOUS SYSTEM
and cold exposure, 626
conduction velocity
and diabetic neuropathy, 556
dysfunction
and diabetic neuropathy, 626
and nonketotic hyperglycemia, *503
and glucose utilization, *316
and hyperosmolar coma, 115
and insulin secretion, *502
and Leigh's encephalomyelopathy, *118
and motor conduction velocity in diabetics, *182

NEUROPATHY, DIABETIC
and blood flow in feet, *787
and cholecystomegaly, *706
and cold exposure, 625-626
and diarrhea, 858-865
and diphenylhydantoin, *245
electromicroscopic findings, *438
and femoral and popliteal occlusive vascular disease, 429
ischemic, *120-121
and nerve conduction velocity, 556
and small bowel motility, *642
and swallowing disorder, *710

NIALAMIDE
and insulin secretion, 417-419

NICOTINAMIDE
and streptozotocin-induced diabetes, 459, 460, 464-465, *641

NICOTINIC ACID
and blocking of streptozotocin-induced diabetes, 459, 461
and blood sugar, 300-301
and hyperlipoproteinemia, *244
-induced plasma free fatty acid rebound
and alpha adrenergic blockade, *640
and muscle glycogen activity and physical working capacity, *786
and streptozotocin, 543-544
and streptozotocin-induced diabetes, 460

NITROGEN
retention
in pregnancy, 159

NITROPRUSSIDE
and hypotension, 26

NORADRENALINE
in infants of diabetic mothers, *187
pancreatic, *57

NOREPINEPHRINE
and fat and ketone body metabolism
in obese and nonobese diabetics and nondiabetics, *585
and glucose tolerance
in cardiac disease, *245

NORETHINDRONE, 146

5-NUCLEOTIDASE
and glucagon, *58-59

NUTRITION
and glucose response, 400
lactose malabsorption in Thai children, *642
and medium-chain triglycerides, 74
and regulation of food intake, *251
and zinc deficiency, 95

NUTRITION REHABILITATION CENTERS, 231

O

OASTHOUSE SYNDROME, 100

OBESITY
and adipose tissue cellularity, *788
and alcohol hypoglycemia, *244
and diabetes, 40-42
and beta-pancreatic function in children, 238-242
in Cocopah Indians, 35
and fat distribution patterns, 478
and fat mobilization, 759-771
and glucose uptake, *312
onset, *117, *869
and pancreas function, 238-242
pathogenesis, *581
and plasma insulin Sephadex fractions, 836, 839
in diabetes survey of Seneca Indians, 39, 41
and exocrine pancreas function, *60
and glucose tolerance tests
and blood pyruvate and plasma glucose levels, *313
and hyperglycemia
and streptozotocin diabetes, 609
and hyperinsulinism, *579
and hypertriglyceridemia
and glucose and insulin levels, *439-440
and insulin action, *584
and insulin release, *708
and insulin-resistant diabetes, *179, 445-453
and oral hypoglycemic drugs, *246
and insulin response to glucagon, 216-223
and insulin secretion, *119, *184
and islet implants, *253
and pancreas exocrine function, *59
and vascular disease, 429

OCTANOATE
and insulin secretion, 99

ORAL CONTRACEPTIVES
and blood sugar, 300-301
and carbohydrate insulin metabolism, 151
and progestin study, 146-151
and serum insulin and glucose tolerance, *317-318

ORAL HYPERGLYCEMIC AGENTS
benzothiadiazine compounds, *584-585

ORAL HYPOGLYCEMIC AGENTS. *See also* Sulfonylureas.
and congenital anomalies, 475
and diabetes course, *873
and glucagon release, *252
and insulin-resistant diabetes, 445
and obese, insulin-resistant diabetics, *246
and pediatric and pregnant patients, *244
and prediabetes, *873
in study of diabetes and vascular disease, 671

ORNITHINE
and glucagon, 751, 753

OUABAIN
and glucagon release, 630
-sensitive potassium accumulation in fat cell ghosts, *707

OVARIES
dysgenesis
and growth hormone secretion, *582

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

OXYGEN
consumption
and assay of urine glucose, 467-469
consumption by brain
and hyperosmolar coma, 114

P

PAGOPHAGIA
and anemia, 396, 427

PANCREAS
acute pancreatitis
and hypoglycemia, *317
alpha cells
and gastrin, *59
beta cells
adenosine triphosphate, 509-515
and diabetes onset, *870
and diazoxide, 26
electron microscopic cytochemistry of 5-hydroxytryptamine in, *247
glycogen assays, *118
and hydrogen sulfide, *57
H-thymidine index in streptozotocin diabetic mice, 607-608
and insulin release inhibition, *441
and islet cell tumors, *711
mitotic division in, *642
of normal and alloxan-diabetic rabbits and their offspring, 138-144
and obesity, *184
and octanoate, 99
and pancreatic duct ligation, *316
and streptozotocin, 544
and sulfonylureas, *58, *873
and virus-induced diabetes, *314
and carbohydrate loading, 434-436
chicken
isolation of insulin from, *580
and cyclic AMP, 810
cytostructure and endocrine function, *503
and diabetic diarrhea, 861
disease
and malnutrition, *438
exocrine
from obese-hyperglycemic mice, *60
fetal ovine
insulin content, *585
function
and obesity in children, 238-242
and pellagra, 833
glucagon
and starvation, 717-722
glucagon secretion, 627-631
and glucose, 1-9
and sulfonylureas, *252
insulin
of nonpregnant, pregnant and postpartum rats and developing rat fetus, 268-271
and obesity, *579
insulin degradation
and monoamine-oxidase inhibitors, 417-419
insulin release, *315
and amino acids, *641
and arginine, *641
of insulin-resistant diabetic, 450
islet cell adenoma, 839
and plasma insulin Sephadex fractions, 835, 836
and streptozotocin therapy, *250-*251
islet cell carcinoma
and streptozotocin, 675-678
islet implants
in obese mouse, *253
islets, *118
and alloxan and enzyme activity, 589-596
and diabetes onset, *869
and glucagon immunoassays, *643
and glucose phosphorylation, *786
and growth hormone, *119
and heavy metals, *56-57
and insulin precursors, *708
and insulin release, *501, *581
isolated rat islets
and insulin alpha and beta chain production, *585
lesions
and viruses, *180
monoamines, *57
of obese hyperglycemic mice, *59
perfused rat
and insulin secretion study, *245
of premature infants, *440
and preparation of human insulin, 206-211
rat endocrine
and glucagon, *58-59
-small gut preparation
and study of intestinal factor and insulin release, 733-738
surgery
and diabetes, *248
tumor detection, *709-710
zinc content, *60

PANCREATECTOMY
and cardiovascular lesions study, 275
and cholesterol absorption and serum cholesterol level, *311
and diabetes
and sex, 484
and exercise, *118-119
and fat assimilation, *183
and free fatty acids, glucagon and insulin, *789
and glucose disappearance rate study, 235
and glucose and glucagon concentrations, 13
and glucose tolerance, 400
and glucose turnover rate
and D-glucose or D-ribose, 820-827
and hepatic artery ligation, *184-*185
and insulin disappearance rate, 658
and liver lipids, 426
and pregnancy and serum insulin, *315

PANCREATICODUODENAL VEIN
glucagon
and hypoglycemia, 3, 5-7

PANCREATIN
and cholesterol absorption, *311

PANCREATITIS
and diabetic coma, *441
and hyperosmolar nonketotic coma, 114
and tolbutamide, 499-500
and vascular disease, 429

PANCREOZYMIN
and blood and bile insulin and glucagon, *244
and hyperaminoacidemia, *504
and hyperinsulinemia, 397
and insulin and glucagon release, 381-385
and insulin secretion, 397, *870

PARASYMPATHOMIMETIC AGENTS
and insulin secretion, *316-317

PARATHYROID GLANDS
and diabetes, *181

PELLAGRA
and gastric and pancreatic function, 833

PEPTIDASE
and alloxan, 589-596

PHENELZINE
and plasma glucose, insulin and free fatty acid, 538-540

PHENFORMIN
and carbohydrate and lipid metabolism, 612-618
and glucose uptake
and diabetes and obesity, *312
and lactic acidosis, *247

PHENTOLAMINE
and hyperglycemia, *501
and insulin release, *501

PHENYLALANINE, 195-196
and glucagon, 751,753
in pork and human insulin, 210

PHENYLALANINE PYRUVATE TRANSAMINASE
and glucagon and insulin, *501

PHENYLKETONURIA, 100

PHEOCHROMOCYTOMA
and hyperglycemia, 300

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

PHOSPHATE
and adenosine triphosphate, 514

^{32}P PHOSPHATE
incorporation
and insulin, *584

PHOSPHODIESTERASE
and diazoxide, 514

PHOSPHOGLUCOMUTASE, 798-803

6-PHOSPHOGLUCONATE DEHYDROGENASE, 258
and alloxan, 589-596

PHOSPHORYLASE, 798-803
and cyclic AMP, 810
deficiency
and glycerol, *186

PHOSPHORYLASE KINASE, *180
and calcium, *316

PIMA INDIANS
congenital anomalies and diabetes in, 471-477

PITUITARY GLAND
ablation, 691
and diabetic retinopathy, *245
apoplexy
and acromegaly, *121
and diabetes, *181
growth hormone release
and hypothalamus-releasing factor, *641
growth hormone suppression, *186

PLACENTA
lactogen, 159-162
transfer of insulin I-131
and fetal insulin metabolism, 409-415

PLASMA
corticosteroids and insulin
and corticotrophin stimulation, *311
free fatty acid rebound
and alpha adrenergic blockade, *640
and nonischemic cardiac disease, *245
and phenformin, 616
free fatty acids
and D-ribose and D-glucose, 822
free fatty acids and glucose
in women in labor and their newborns, *441
glucose
of Cocopah Indians, 34
and glucagon, 217-218
and glucose tolerance tests and obesity, *313
and pancreozymin, *244
response to vasopressin in diabetics and nondiabetics, *643
and D-ribose and D-glucose, 822
glucose and free fatty acids
and glucose loading, 633-638
glucose, insulin, and free fatty acids
and exercise, *252
glycerides and cholesterol
in glucose tolerance survey, *705
growth hormone
and glucose tolerance, 402-408
and insulin and arginine, *583
and insulin, arginine, and dexamethasone, *441
and pregnancy, 159
and propanolol, *182
immunoreactive insulin
and starvation, *122
insulin
and benzothiadiazines, 22, 23
of children with abnormal glucose tolerance tests, 240
and chlorpropamide, *873
disappearance rate, 653-659
and glycogen storage disease, 755-758
and growth hormone response, *251
and hyperosmolar nonketotic coma, 114
and liver insulinase activity, *120
and pregnancy, 154-162
and protein, 523-527
and progestin, 146-151
in rheumatoid arthritis patients, *317
and secretin, *317
Sephadex fractions, 834-839
insulin and glucagon
and starvation, *640
insulin and growth hormone
and juvenile diabetes, *706-707
insulin-like activity
and diazoxide and hydrochlorothiazide therapy, 25
insulin response
to continuous glucose infusion in normal and diabetic subjects, 273-279
to glucose and alcohol, 517-521
to oral carbohydrate, 38-43, 434-436
lactate and pyruvate
and glucose, 520
lipids
and ischemic heart disease, *640-641
and nicotinic acid, *244
and phenformin, 616
nonesterified fatty acids
and placental lactogen, 162
11-oxysteroid
and insulin hypoglycemia, *503
pancreatic glucagon
in normal man, 717-722
transcortin
and cortisol binding and age of diabetes discovery, *579
triglycerides
and uremia, *438

POLYPEPTIDES
and insulin biosynthesis, *314-315

POMPE'S DISEASE. *See* Glycogen storage disease.

POTASSIUM
depletion
and benzothiadiazines, 23-25
and diabetic ketosis, 781-785
and fat cell metabolism, *707
in infants of diabetic mothers, *871
and insulin action, *181
release
and cyclic AMP, 803

PREDIABETES
and basement membrane thickening, *871
and carbohydrate and fat metabolism, *438-439
and free fatty acid response to glucose in pregnancy, *583
genetic "marker" for, *872
and insulin secretion, 42, *870
metabolic and vascular studies, *871
and muscle capillary basement membranes, *504
and pregnancy
and congenital anomalies, 477
and serum growth hormone and insulin response to tolbutamide, *117
and vascular disease, *873

PREDNISOLONE
and hyperosmolar anacidotic coma, 106
and insulin secretion, *582

PREGNANCY. *See also* Pregnancy, diabetic.
and blood glucose and insulin relationships, *789
and carbohydrate tolerance, 153-162
and chorionic growth-hormone prolactin
clearance and production rates, *502-503
and diabetes survey of Pima Indians, 471-477
early
and fetal insulin metabolism, 409-415
and free fatty acid response to glucose, *583
and gestational diabetes, *872
and glucose tolerance, 146, *712
and hyperglycemia, 300
and insulin secretion and growth hormone, *249
and labor
and lipoprotein lipase and plasma free fatty acids and glucose, *441
and lactation
and growth hormone, *185

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

maternal-placental-fetal relationship, *870-871
and pancreatectomy in dogs, *315
and pancreatic insulin content of rats, 268-271
and synalbumin insulin antagonism, *707
and umbilical cord jelly glucosamine content, *442

PREGNANCY, DIABETIC
and carbohydrate tolerance, 153-162
and chlorpropamide therapy
and neonatal hypoglycemia, *188
criteria for, 472
and cystic fibrosis, *120
and infant mortality, *871
and sulfonylurea therapy, *244
and umbilical cord jelly glucosamine content, *442

PROGESTERONE
and serum glucose disappearance rates, 146, 148

PROGESTIN
and plasma insulin response to glucose, 146-151

PROINSULIN, *121-122
and goosefish insulin, 136
in human urine and serum, *185
immunoassay, 598-605
and insulin biosynthesis, 392-395
and plasma insulin assays, 278
porcine
characterization and amino acid sequence, *312

I-131 PROINSULIN, 598-605

PROLINE
and glucagon, 751, 753
incorporation as bone proline, 281-282
and insulin biosynthesis, *314-315
in pork and human insulin, 210

PROPRANOLOL
and catecholamine release, 266
and hyperglycemia, *501
and plasma growth hormone levels, *182

PROTEINS
absorption
and diet, 74
assays, 392
calorie malnutrition
and pancreas, 470, 492
and diabetic ketosis, 781-785
and glucose, *123-124
of goosefish insulin secretion granule, 130, 133
and insulin-like activity assays, 69-70
and plasma insulin
in mild diabetics, 523-527
plasma insulin and growth hormone response to, *251
synthesis
in bone, 280-283
and insulin, *314
and 6-mercaptopurine, 109

PROTEINURIA
and diabetes duration, *120
in diabetes survey, *706

PUROMYCIN
and insulin biosynthesis, *314
and insulin release, *245

PROSTAGLANDIN E
and glucose metabolism
and potassium, *181

PYELONEPHRITIS
and glucose reabsorption, *59

PYRAZINAMIDE
and carbohydrate and fat metabolism, *708
and streptozotocin-induced diabetes, 460, 462

PYRUVATE
and alcohol hypoglycemia, *642
carboxylation
regulation by malonate and malonyl CoA[1], *249
and kidney gluconeogenesis, *316
and Leigh's encephalomyelopathy, *118
and tolbutamide and buformin, *56

Q

QUECHUA INDIANS
and coca leaf chewing, 723

R

RABBITS
alloxan-diabetic
and pancreas beta cell morphology, 138-144
and resistance to streptozotocin diabetes, 542-544

RACE
and atherosclerosis, 28
and diabetes, *247, 849, 853
among Indians, 33-34
and fat distribution study, 479-486
and vascular disease and blood lipids, 670-673

RESERPINE
and beta cell cytology, *247

RETINA
and hemorrhage and cutaneous capillary resistance, *708-709
intramural pericytes, *253
vascular disease and macular dysfunction, *314
vessels
diameters in diabetics and normals, 292-297

RETINITIS PROLIFERANS
and pituitary ablation, *245

RETINOPATHY
and capillary resistance, *708-709
and clofibrate, 285-291
and cotton-wool spots, 691-704
and diabetes
and control, age, and therapy, 773-780
and diabetes duration, 292-297
in diabetes survey, *706
and estimates of basement membrane thickness, 567-577
and femoral and popliteal occlusive vascular disease, 429
and hypophysectomy, *438
and intramural pericytes, *253
in juvenile diabetes, *789
and pituitary ablation, *245
in South African survey, 850-851
in young Indian diabetics, 671, 672

RHESUS MONKEYS
and progestin
and insulin response to glucose, 146-151

RHEUMATOID ARTHRITIS
and glucose tolerance and plasma insulin
and corticosteroid therapy, *317

RIBITOL
and insulin release, *250

RIBOSE
and pancreas beta-cell metabolism, *58

D-RIBOSE
and glucose turnover rate
or D-glucose, 820-827

RNA
-dependent protein synthesis and 6-mercaptopurine, 109
and insulin biosynthesis, *187-*188
metabolism
and diabetes, *125
and protein-calorie malnutrition, 470, 492

S

SACROCOCCYGEAL AGENESIS SYNDROME, 473

SALICYLATES
and blood sugar, 300-301

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

SALT-ETHANOL EXTRACTION, 210
and insulin-like activity and immunoreactive insulin assays, 65-73

SCIATIC NERVE
lipids and fatty acids, 556-560

SECRETIN
and blood and bile insulin and glucagon, *244
and insulin and glucagon release, 381-385
and insulin secretion, 397, *502, *870
in diabetics, *317

SELENIUM
radioactive
and labeling of rat insulin, 51

SENECA INDIANS
and diabetes, 38-43, *788

SERINE
and glucagon, 751, 753
in pork and human insulin, 210

SEROTONIN
and insulin release, *187

SERUM
anti-insulin
in fetal sheep and young lamb, *707
and glucose metabolism, *124
and insulin activity study, 193-205
in insulin immunoassay, 660-669
and insulin-like activity assays, 70-72
and liver amino acid transaminases, *501
cholesterol
and clofibrate treatment of diabetic retinopathy, 288
and pancreatectomy, *311
of rats fed atherogenic diet, 228
and retinopathy, 288, 290
cholesterol, free fatty acids, and phospholipids
and tolbutamide, *311
free fatty acids
and blood glucagon and insulin, *789
glucose, insulin, and free fatty acids
in relatives of diabetic children, *124
glutamic oxaloacetic transaminase
and ketosis, 781-785
growth hormone
and acromegaly, *246
growth hormone and insulin
and prediabetes, *117
immunoreactive insulin
and body weight, *711
in children with chemical and early overt diabetes, 680-681
during oral glucose tolerance tests and cortisone-glucose tolerance tests, 573
and erythroblastosis fetalis, *180
half-life of, *188
insulin
absence of glucose response to, 397-401
and adrenal cortex, *187
in early latent diabetes, *186
and hypertension, *707-708
and ischemic heart disease, *640-641
and methacholine, *502
and nonketotic hyperosmotic diabetes, *182
and oral contraceptives, *317-318
in pancreatectomized pregnant dogs, *315
radioimmunoassay, *60
response to glucagon, 216-223
and tolbutamide, 499-500
insulin and glucagon
during glucose tolerance test, *253
insulin, growth hormone, and free fatty acid
during Staub-Traugott effect, 232-236
and tumors, 388
insulin and growth hormone responses
and body weight, *871
insulin-like activity, *57-58
and immunoreactive insulin, 65-73
and prediabetes, *439
lipids
and acromegaly, 48
in young Indian diabetics, 671
and vascular disease, 670-673
lipoproteins
disorders of, *441
luteinizing hormone
radioimmunoassay in normal children, *580
magnesium and potassium
and glucose and insulin infusion, *712
methione, 284
potassium
and benzothiadiazines, 23-25
and "oral diuretic" agents, 25
proinsulin, *185
proteins
and diabetic diarrhea, 861
triglycerides
and alloxan diabetes, *787
uric acid
and benzothiadiazines, 23

SEX
and diabetes, 36, 848, 851, 853
and onset, *117
and prevalence, *247
and diabetic retinopathy
and clofibrate therapy, 290
and diphenylhydantoin therapy, *245
and fat distribution study, 479-486
and gallbladder size, 496
and plasma insulin disappearance rate, 654
of South African diabetics in capillary study, 165
in study of diameters of the retinal vessels in diabetics and normals, 292-297
and vascular disease and blood lipids in diabetics, 670-673

SEXUAL DEVELOPMENT
and glycogen storage disease, *314

SKIN
of ethynodiol-treated monkeys, 150

SKINFOLD MEASUREMENTS
in diabetics and nondiabetics, 478-486

SLEEP
and growth hormone secretion, *318

SODIUM
and diabetic ketosis, 781-785
intake
and diazoxide, 23

SODIUM BETA-HYDROXYBUTYRATE
and adipose tissue metabolism, *180-181

SODIUM CHLORIDE PRECIPITATION
of crystalline human insulin, 207

SODIUM DEOXYCHOLATE
and isolated goosefish islet secretion granules, 131-132

SODIUM SALICYLATE
and blood glucose and plasma nonesterified fatty acids, *439

SODIUM TOLBUTAMIDE
streptozotocin-induced diabetes, 464

SORBITOL C-14, 85

SOUTH AFRICA
diabetes survey, 840-856
study of ultrastructure of capillaries in diabetics, 164-175

STARVATION
and adipose tissue cellularity, *788
and alcohol hypoglycemia in obese subjects, *244
and blood ketones and nonesterified fatty acids, *186
and glucose tolerance, 258-259
and glucose utilization, *184
and insulin and glucagon release, *640
and insulin and glycogen stores, *119-120
and ketoacidosis
and insulin, 99

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

and liver glucokinase activity, 258
and localization of insulin, *581
and newborn infants, *441
and pancreatic glucagon, 717-722
and pancreaticoduodenal vein glucagon, 5, 7, 8
and plasma immunoreactive insulin and insulin-like activity, *122
and plasma pancreatic glucagon in normal man, 717-722
and sodium salicylate effect on blood glucose and fatty acids, *439

STAUB-TRAUGOTT EFFECT
and hypophysis, 236
and serum insulin, 232

STEATORRHEA
and pancreatic duct ligation, *316

STEROIDS
and insulin response to glucose, *640

STREPTOZOTOCIN
and islet-cell tumor, *250-251, 675-678

STREPTOZOTOCIN DIABETES, *121-122
and blocking compounds, 459-465
in mouse and guinea pig, 606-611
and nicotinamide, *641
resistance to, 542-544

STRESS
and glucose tolerance tests, 161, 301

SUCCINATE
and kidney gluconeogenesis, *316

SUCROSE
and glucose tolerance, 259
and heart disease, *184
and vascular disease, 673

SUGAR
consumption
of Athabaskan Indians, 29
transport
and tolbutamide, 84-93

SULFONYLUREAS
and adenosine triphosphate levels of pancreas beta cells, 509-515
beta-cytotropic effect of, *873
diabetogenic effect, 19-26
glibenclamide, *442
and glucose uptake
and diabetes and obesity, *312
and hypoglycemia, 529-536
and pancreas beta cell metabolism, *58
and retinopathy, 778-780
and sugar transport system of skeletal muscle, 84-93
and thyroid function, *182

SURGERY
abdominal hysterotomy
in fetal insulin study, 409-415
adrenalectomy, *187
and diabetes, *248
and tolbutamide, *185
and femoral and popliteal occlusive vascular disease, 431
and glucose tolerance, *181
hepatic artery ligation, *184-*185
and hyperglycemia, 300
hypophysectomy, *184, *438
pancreatectomy
and fat assimilation, *183
pancreatic duct ligation, *316
pituitary ablation, *245
and study of intestinal factor and insulin release, 734-735

SYMPATHOADRENAL SYSTEM
and monamine-oxidase inhibitors, 540

SYNALBUMIN INSULIN ANTAGONIST, *182, *580
and fetal deaths, *707

T

TAURINE
and glucagon, 751, 753

TEMPERATURE
cold
and catecholamine excretion in diabetic rats, 625-626

TES-TAPE, 841
and glycosuria tests, *581

THAI CHILDREN
and acquired lactose malabsorption, *642

THEOPHYLLINE
and cyclic AMP, 805
and free fatty acid release, *707
and glucagon release, 630
and insulin release, *501, 622

5-THIO-D-GLUCOPYRANOSE
and diabetogenic action of, *441

THIOPENTAL, 414

THREONINE
and glucagon, 751, 753
in pork and human insulin, 210

THROMBOSIS
and diet and insulin, 229
and dietary fatty acids, *185

THYMOL
and glucose tolerance testing, 302

THYROID
deficiency
and plasma insulin Sephadex fractions, 837
and diabetes, *181
disease
and glucose tolerance, gastric emptying and insulin secretion, *246
and sulfonylureas, *182

THYROTOXICOSIS
and glucose loading, 633-638
and hyperglycemia, ketoacidosis and coma, *252-*253

THYROXINE
and kidney gluconeogenesis, *316

L-THYROXINE
and alcohol hypoglycemia in obese subjects, *244

TIC DOULOUREUX
and diabetes, *312

TISSUES
acid maltase
and glycogen storage disease, *312
adipose. *See* Adipose tissue.
anabolism
and pregnancy, 159
brain
and glucose, *123, *123-124
diaphragm and adipose
and insulin action, *584
epididymal fat pads
and medium-chain triglycerides, 74
fat pad
and insulin-like activity assays, 65-73, 75-82
human adipose
and antilipolytic effect of insulin, *182
and insulin degradation, 554-555
and localization of insulin, *581
mammary gland
and glucose metabolism, *124
mouse diaphragm
and sugar transport study, 84-93
muscle
capillary study in diabetics, 164-175
and diabetic amyotrophy, *246
and exercise, *118-119
glucose uptake in diabetes and obesity, *312
and insulin inhibition study, *253
and tolbutamide, 84-93
muscle and adipose
cyclic 3',5'-AMP phosphodiesterase and insulin, *583
rat adipose
and glucose metabolism, *248
glucose metabolism and insulin sensitivity, *181
and ketone acids, *180-181

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

rat diaphragm
and fatty acid and carbohydrate metabolism studies, *122
and glucose uptake and albumin, *119
phosphate incorporation and insulin, *584
rat diaphragm and epididymal fat pads
and synalbumin insulin antagonist, *580
rat epididymal fat pad
and insulin-like activity assays, *57-58
sarcoma
and 6-mercaptopurine, 109

TOLBUTAMIDE
adrenal-medulla, 534-535
biological activities, 529-536
and buformin
and maturity-onset diabetes, *56
and diazoxide blockade, 26
during operations on diabetics, *185
and fatty diabetic liver, *311
and glucagon release, 13-15, 630
and glucose-responsive insulinoma, *317
hypoglycemic response to
and aminoethanols, 262
and insulin release, *245, 383-384, *501, 631
and insulin reserve
in chemical and early overt diabetes, 686-690
and insulin-resistant diabetes, 446-449
and insulin secretion, *581
metabolism
and alcoholism, *247
plasma insulin responses to
and secondary aminoethanols, 262-265
and prediabetes and vascular disease, *873
response
in infants of diabetic mothers, *643
and serum insulin, 499-500
and sugar transport, 84-93
tests
and carbon monoxide poisoning, *57
and liver cirrhosis, *313
tolerance
and pregnancy, 153
tolerance tests, *117
in the progesterone-treated monkeys, 147
and tumor-bearing rats, 622-823

TRANSPLANTATION
and diabetic coma, 107-109

TRANYLCYPROMINE
and insulin secretion, 417-419

TRAUMA
and glucose tolerance, 300

TRIAMCINOLONE
and gluconeogenesis, *643
and lipid metabolism, *188

TRICARBOXYLIC ACID CYCLE ENZYMES, 595

TRICHLORMETHIAZIDE
and glucose tolerance
and serum potassium levels, 24-25
and hyperglycemia
and insulin secretion, 19-26

TRIGLYCERIDES
fasting
and obesity, *179
hydrolysis
and pancreatectomy, *183
medium-chain
and gastrointestinal disorders, 391
and insulin secretion, *246
and nicotinic acid therapy, *244

TRIS AMINOMETHANE
and insulin secretion, *585

TRYPSIN
and proinsulin conversion to insulin, *312

TRYPTOPHAN
and glucagon, 751, 753
and insulin assays, 392

TUMORS
and acromegaly and diabetes, 44-46
growth hormone-secreting
and glucose metabolism, 387-390
and insulin storage and release, 619-624
hepatoma
glycogen storage in, *180
and hypoglycemia
and diazoxide, 26
islet-cell
and adipose tissue metabolism, *709
and pancreas beta cell function, *711
and streptozotocin therapy, *250-*251

TURNER'S SYNDROME
and growth hormone secretion, *582
and hyperglycemia
and insulin and growth hormone responses, *119

TWINS
monozygotic
and prediabetes, *439

TYROSINE
and glucagon, 751, 753
and insulin assays, 392
in pork and human insulin, 210

U

ULCER
diabetic neuropathic, *439
and diet therapy, 391
peptic
and gastric emptying rate and blood glucose levels, *311
and vascular disease, 429

UMBILICAL CORD
jelly glucosamine content in diabetic and normal pregnancy, *442

UNIVERSITY GROUP DIABETES PROGRAM, 303-304

UREA
and glucagon, 751, 753
production
and epinephrine and glucocorticoids, *643
and hormones, 728

UREA NITROGEN
and diabetic ketosis, 781-785

UREMIA
and carbohydrate metabolism, *58
and glucose intolerance, *313, *442, *787
and growth hormone levels, *188
and hypertriglyceridemia, *438
and insulin antagonist, *787
and plasma insulin Sephadex fractions, 836

URINE
catecholamine excretion
and cold in diabetic rat, 625-626
in infants of diabetic mothers, *186-*187
glucose
anthrone reagent determination of, *253
determination by measurement of rate of oxygen consumption, 467-469
17-hydroxycorticosteroid
and acromegaly, 47
and hypermethioninemia, 284
and hyperosmolar coma, 113
odor
and metabolic defects, 100
proinsulin, *185
tests
and acromegaly, 45, 47
and islet cell carcinoma and streptozotocin therapy, 675
zinc
and diabetes, *711

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

V

VALINE
and glucagon, 751, 753
in pork and human insulin, 210

VASCULAR DISEASE
and blood lipids
in young Indian diabetics, 670-673
femoral and popliteal occlusive, 428-433
and hyperglycemia, *873
among Seneca Indian diabetics, 42

VASCULAR SYSTEM
vein grafts, 432

VASOPRESSIN
plasma glucose response to, *643

VISION
and diabetic retinopathy
and clofibrate treatment, 288-289
and pituitary ablation, *245
and retinal microangiopathy, *314
and serum growth hormone levels in acromegaly, *246

VITAMINS
absorption
and medium-chain triglycerides, 74
C
and carbohydrate metabolism, *122
thiamine
and hyperpyruvemia, *246

VON GIERKE'S DISEASE. *See* Glycogen storage disease.

VON HIPPEL-LINDAU'S DISEASE, *709-710

W

WEIGHT. *See* also Body, weight; Obesity.
gains
and medium-chain triglycerides, 74
and glucose loading dose, 308-310
loss
and ascorbic acid deficiency, 541
of pregnant subclinical diabetics, 154-155
reduction
and insulin release, *708
of Seneca Indians in diabetes survey, 39, 41
of tumor
and decrease of fat depot, 390

WILKERSON POINT SYSTEM, 303

X

XANTHOMATA
and diabetes and acromegaly, 44-46

XANTHOMATOSIS
and hypercholesterolemia, *642

X RAY
of pituitary
and diabetic retinopathy, *245

XYLITOL
and insulin release, *250, *580-581

Y

YTTRIUM, 691

Z

ZINC
and adipose tissue metabolism, *711
and diabetes, 561, 566
and human insulin preparation, 209
in pancreas beta cells, *60
and pancreas islets, *56-57

ZINC-ETHANOL PRECIPITATION
of crystalline human insulin, 207

ZINC GLUCAGON
and blood amino acid in rabbits, 748-754

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

AUTHOR INDEX 1969

In this index are the names of authors of articles that have appeared in DIABETES and those whose articles have been abstracted in the Journal during 1969. Entries marked with an asterisk (*) indicate authors of material that appeared in the ABSTACTS only. The Subject Index appears on page 1.

A

Abrams, M. E., *705
Abramson, Eugene A., *179, *244
Adam, Peter A. J., *244, 409-416
Adams, Andrew P., 428-433
Adesanya, I., *315
Aguilar-Parada, E., 1-10, 717-723
Ahuja, M. M. S., 670-674
Akerblom, H. K., 392-396, *705
Albrink, Margaret J., *252
Alexander, D. P., *707
Alexander, Ralph W., *640
Allan, Frank N., 55
Allen, Elizabeth, *186
Allen, E. William, 19-28
Alley, R. A., *245
Allison, S. P., *311
Almogela, E., *641
Anderson, Pearl R., *642
Andersson, Bo, *581
Anger, G., *120
Antoniades, Harry N., *705-706
Antonowicz, Irena, *438
Appels, A., *56
Acrosy, Mufit M., *188
Arky, Ronald A., *179, *244, *504, 562-566, *710
Arquilla, Edward R., 193-205
Asbury, Arthur K., *120-121
Asfeldt, Vivian Harding, *311
Ashcroft, S. J. H., *786
Ashford, W. R., 828-833
Assan, R., *442
Audhya, T. K., 633-640
Aylett, Pamela, *311
Azumi, Kazuo, *318

B

Bagdade, John D., *179, *438, 759-772
Baird, J. D., *117
Baker, Elizabeth S., *248
Baker, Lester, 421-427, *640
Balodimos, Marios C., *244
Bank, S., 499-501
Bannerman, R. M., *788
Barboriak, Joseph J., 397-401
Barksdale, Bonnie K., *579
Barnes, Allan C., *185
Barrett, Cynthia T., *179-180
Barrett, R. A., *180
Basabe, Juan C., 733-738
Bates, Margaret W., *125
Beard, R. W., *789
Beatty, Clarissa H., *641
Beck, Lyle V., 538-541
Beck, Paul, 146-152, 153-163
Becker, Kenneth L., 268-272
Bell, C. C., Jr., *311
Bennett, Alan, *250-251
Bennett, Leslie L., *245
Bennett, P. H., 33-37, 471-477
Benson, B., *253
Berg, G., *313
Berger, M., *182
Berger, Sheldon, *119-120, 517-522, *870
Bergström, Jonas, *786
Beringer, A., *311
Bernardis, Lee L., *181
Berne, C., *117
Berry, James F., 556-561
Bersohn, I., *188
Berson, Solomon A., 402-408, 834-839, *869-870
Besser, G. M., *246
Bewsher, P. D., *712
Bidone, Giovanni, 238-243
Bierman, Edwin L., *438, 759-772
Biro, G., *585
Bischoff, A., *438
Blackard, William G., *640
Blair, J. H., *119
Blaustein, Ernest H., *503
Blickens, D. A., 612-618
Blizzard, Robert M., *579-580
Bloodworth, J. M. B., 455-458, *871
Bloom, A., *708-709
Bloom, Alan A., *706
Bocek, Rose Mary, *641
Boda, J. M., *585
Boden, G., *117
Bodenbender, Joann G., *119
Bolinger, Robert E., *585
Bongiovanni, Alfred, *582-583
Boquist, L., *56-57
Borek, Blanche A., *248
Borglund, E., *117
Bornstein, J., 280-284
Bortz, Walter M., *706
Böttcher, M., *585
Bottermann, P., *707-708
Boucher, B. J., *582
Bouman, P. R., *253
Bour, H., *57
Boyle, James A., *317
Boyns, D. R., *705
Bozian, Richard C., *439-440
Brackenridge, R. G., *706
Brancato, Paul, 138-145
Brendel, Klaus, 262-267
Bressler, Rubin, *182, 262-267
Briggs, J. H., *786
Britton, H., *707
Brodoff, B., *188
Brolin, S. E., *117
Bromer, William W., 193-205, *312, 748-754
Brosky, G., 606-611
Brown, Barbara Illingworth, *188, *248
Brown, Charlesta B., *501
Brown, J. H., *501
Brown, Josiah, 257-261
Brown, Michael, *250-251
Bryant, M., *712
Buchanan, Keith D., 11-18, *180, *244, *317, 381-386, *580, *640
Buchanan, W. Watson, *317
Bulpitt, C. J., 691-704
Bunting, Kenneth W., *313
Burch, P. R. J., *786
Burch, T. A., 33-37, 471-477
Burgess, E. Ann, *441
Burnham, Clinton E., *710
Butterfield, W. J. H., *312, *786-787

C

Camerini-Davalos, Rafael A., 232-237, *584, *871-872
Cameron, D., *117
Camitta, Francine D., 44-50
Campbell, J., *184-185, 828-833
Canavan, D. A., *248
Cannon, Wendy, *123
Capaldi, R. A., *706
Carbonell, A. W., *581
Cardon, S., *441
Carlson, L. A., *244

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

Carneiro, M., *313
Carnelutti, Margherita, 238-243
Carroll, Nicholas V., 29-32
Cegrell, L., *57
Cenedella, R. J., *706
Cerasi, Erol, *119, *581
Chakrabarty, Krishna, *503
Chamberlain, M. J., *311
Chance, G. W., *706-707
Chance, Ronald E., *312, 748-754
Chattopadhyay, D. P., 387-391
Cheah-Tan, C., *312
Cheraskin, E., *122, *180
Chesney, Thomas McC., 627-632
Chick, William L., *642
Chiumello, Giuseppe, 238-243
Cho, Sooja, *185, 598-605
Christensen, Halvor N., *787
Christensen, Niels Juel, *438, 653-659, *787
Christiansen, I., *640-641
Christiansen, Robert O., *180
Christophe, J., *59
Civen, Morton, *501
Clausen, T., *707
Claycomb, William C., *707
Clayton, Victoria, 280-284
Clément, J.-P., *709-710
Cohen, N. M., *707
Coleman, Douglas L., *184, *248
Coll-Garcia, E., *501
Collipp, P. J., *244
Collis, John S., Jr., *312
Coltart, T., *789
Comess, L. J., 471-477
Comline, R. S., *312
Conn, H. O., *501--502
Conn, Jerome W., 111-116, 523-528
Connon, J. J., *707
Cook, G. C., *438
Corder, C. N., *787
Cornblath. Marvin, *251, *871
Cornu, G., *251-252
Cowan, J. S., *184-185. .
Cox, B. D., *786-787
Cox, Rody P., *312
Craighead, John E., *180, *314
Cramp, D. G., *313
Crawford, Derek. *873
Crawford, John D., *316
Creutzfeldt, W., *56
Crockford, Peter M., 216-224
Crossley, J. R., *705
Cruz, A. Ginestal, *313
Cryer, Philip E., 781-785
Cullen, Andrea M., *787
Cunningham, J. G., *315
Curry, Donald L., *245

D

Dakshinamaurri, K., *312
Dancis, Joseph, *312
Danielson, Ake, 509-516
Danowski, T. S., *245
Date, J., *317-318
Daughaday, William H., 619-624, 781-785
Daunas, J. A., *188
Davidson, J. K., 212-215, 828-833
Davidson, Mayer B., *787
Davidson, Paul C., *252
Davison, A. N., *786
Daweke, H., *185, *438
DeCastro, Oscar A. P., *641
Deckert, Torsten, *317-318, *502, *640-641
DeFelice, S. L., *439
de Malbosc, H., *442
De Moor, P., *579
De Moura, M., *313
Del Guercio, Maria Jose, 238-243
Del Rio, Alejandro, *60
Demand, H. A., *313
Derot, M., *442
Derra, E., *583
Desjardins, Claude, *641
Devecerski, Miloje, *180-181
Devlin, James G., *439, *788
Di Girolamo, Mario, *181
Diaz, Carlos A., *248
Diehl, Antoni M., *248
Dieterle, P., *707-708
Dinstl, Karl, 11-18
Dinwiddy, G., *707
Dixit, Padmakar K., 589-597
Doar, J. W. H., *313, 633-640
Dobson, H. L., *246
Doeblin, Thomas D., 38-43, *788
Dollery, C. T., 691-704
Donnell, George N., *314
Dorf, G., *57
Dorsett, Rudolph, *642-643
Dost, F. H., *440
Drash, Allan, *583, *641-642
Duggan, M., *788
Dulin, William E., *182, 459-466, *641, *708
Dully, Carrie Case, *641
Dunand, P., *707
Duncan, R. O., *712
Dungan, K. W., *501
Dupré, J., *870
Dürr, F., *441
Dykman, Calvin J., 111-116

E

Eberlein, Walter R., *582-583
Eddelston, A. L. W. F., *250-251
Edelstein, Isobel, 840-857
Eden, Mary A. M., *313
Edgar, Paul J., *641, 755-758
Edwards, A. V., *312
Edwards, J. E. C., *250-251
Ehenreich, Theodore, *584
Ehrenberg, M., *441
Eisenstein, Albert B., *502
Eisentraut, Anna M., 1-10, *504, 717-723
Elkington, S. G., *501-502
Ellenberg, Max, *245, *439
Ellis, Robert M., 206-211, *312
Elphick, M. C., *181
Emch, James R., *188
Emerling, Frank G., 38-43
Engel, Eric, *313
Engerman, R. L., 455-458
Ensinck, John W., *122, 392-396
Esmann, Viggo, *57, *117-118, *313
Etilli, Lale, *441
Ettinger, Philip O., 245
Eure, C. A., 107-110
Evans, K., *788
Exton, J. H., *708

F

Fain, John N., *181
Fajans, Stefan S., 523-528, *872
Falk, Gerald, *248
Falkmer, Sture, *56-57, *59
Farquhar, John W., *181, 273-279, *584
Farrant, P. C., *708
Faulhaber, J. D., *317
Fefer, Alexander, *317
Fehm, H., *707-708
Feinberg, Leonard J., *439, *641
Feldman, Jerome M., 84-95, 529-537
Feldman, Robert, 478-486, *873
Field, James B., *642
Fine, Richard N., *314
Fineberg, S. K., *246
Fink, C. Joan, *581
Finster, Joseph L., *317
Fisher, A. M., 828-833
FitzGerald, M. G., *789
Flament-Durand, Jacqueline, *249
Fleitz, Susan, *250
Fleming, L. W., *706
Flock, Eunice V., *579
Floyd, John C., Jr., 523-528
Foà, Piero P., *643, *709, *711, *789
Foglia, Virgilia F., *871
Foley, J. F., *314
Ford, Starr, Jr., *439-440
Forsham, Peter H., 445-454, *640
Fowler, P. B. S., *786
Fraley, Donald S., *181
Franchimont, P., *246
Frank, Arthur, *181
Franks, L. M., *581
Franks, Robert C., *186
Frantz, Andrew G., *316
Fraser, T. Russell, *188
Frasier, S. Douglas, *314
Frawley, Thomas F., *180-181
Frazier, Veronica, *250
Fredrickson, Donald S., 739-747
Freinkel, Norbert, *244, *870-871
Frerichs, H., *56
Frohman, Lawrence A., 38-43, *181, *788
From, George L. A., *314
Fujimoto, Wilfred Y., 755-758

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

Fukase, Masaichi, *182
Fukuda, Masatoshi, 773-780
Furman, M., 542-544

G

Gagliardino, Juan Jose, 417-420
Galloway, John A., *869
Garces, Ludivinay, *641-642
Garcia, Luis A., *60
Gass, J. Donald M., *314
Geminiani, G. D., *788
Genuth, Saul M., 434-436, *579
Gerritsen, G. C., *708
Gilbert, Verne E., *246
Gilgore, S. G., *439
Gill, J. R., *501
Gitelson, S., 493-498
Gitlin, David, 409-416
Gittelsohn, Alan M., *253
Gitzelmann, R., *123, *708
Gjedde, F., *57-58
Gladtke, E., *440
Gleason, R. E., *117, *188
Glick, Seymour M., *121, *503
Glinsmann, Walter H., *181-182
Glueck, Charles J., 739-747
Goberna, R., *582
Goetz, Frederick C., *316, 556-561
Goldberg, Alfred L., *314
Goldberg, M. D., *247
Goldberg, Marshall E., 101-106
Goldenberg, Victor E., *188
Goldsmith, Stanley J., 402-408, 834-839
Goldstein, Samuel, 545-549
Golob, Erich K., 268-272
Goodner, Charles J., *873
Gossain, V. V., 670-674
Gostomzyk, Johannes Georg, *124
Gough, K. R., 285-291
Graham, Charles A., *244
Grant, Alison M., *584-585
Grant, D. B., *502
Grant, P. T., *314-315, *708
Grasso, S., *440
Graves, Thomas M., *246
Gray, Grace W., *251
Gray, Timothy K., 44-50
Green, G. R., *184-185
Greenberg, Robert E., *180
Greenberger, Norton J., *246
Greene, Martin L., 755-758
Gregersen G., *182
Gries, F. A., *182
Gries, H., *438
Griffiths, A. D., *315
Grillo, T., *315
Grinnan, E. L., 212-215
Grodsky, Gerold M., *245, 445-454, *640
Grodzki, M., *440
Gross, H. U., *313
Grumbach, M. M., *502-503
Gruneklee, D., *438
Guggenheim, Wolf, 428-433
Guidoux, R., *440-441
Guien, Cl., *709-710
Gurpide, E., *502
Gürson, Cihad T., *441
Guthrie, R. A., *642, 679-685
Guy-Grand, B., *57
Guyda, Harvey, *579-580

H

Haddad, John G., Jr., *579
Hadden, D. R., *58
Haft, David E., *315
Hagura, Ryoko, 487-492
Haist, R. E., 212-215, 828-833
Hales, C. N., *315
Hall, J., *249-250
Hamilton, C. R., Jr., *246
Hampers, Constantine L., *787
Han, Paul W., *788
Hansen, E. Lynders, *643
Haque, Nasir, 421-427, *640
Harrold, B. P., 285-291
Hart, Robert J., *251
Hartkopp, O., 292-298
Hartroft, W. Stanley, 225-231
Hashim, Sami A., 96-100
Hastings, A. Baird, *248
Hattinberg, M.v., *440
Havu, N., *56-57
Hayduk, K., *441
Haynes, Robert C., Jr., *643
Hazelwood, Robert L., *579, *580
Hazzard, William R., 216-224
Heath, H., *708-709
Hedeskov, C. J., *117-118
Hedner, L. P., *502
Heebok, Park, *184
Heidingsfelder, Sylvia A., *640
Hellerstrom, C., *58
Hellman, Bo, *118, *441, 509-516
Henderson, J. R., *788
Henner, J., *707-708
Henry, D. P., *182
Henry, R. E., 33-37
Herberg, L., *583
Hernandez, Rodolfo Eduardo, 417-420
Hershman, Jerome M., *182
Hertelendy, F., *502
Hetenyi, G., Jr., 820-827
Hickernell, Barbara, 381-386
Himsworth, R. L., *316
Hinton, Pamela, *311
Hirsch, Jules, *788
Hirson, C., *318
Hoar, Carl S., 428-433
Hobolth, Niels, *313
Hoffman, Daniel J., *441
Hoffman, Richard S., *710
Hoffmann, M., *442, *583
Hogbin, B. M., *250-251
Holcomb, George N., *182
Holdsworth, C. D., *246
Holmes, Lewis B., *316
Holmes, William L., *706
Holzman, Gerald B., *185
Hommes, F. A., *118
Honda, Yutaka, *318
Hornichter, Richard D., 257-261
Horton, Edward S., *58
Hould, Fernand, *642
Howat, Paula, *706
Howell, R. Rodney, 755-758
Hrabal, I., *311
Hubrich, K., *56
Huff, Thomas A., *246-247
Hughes, Walter T., *317
Hultman, Eric, *786
Hultquist, G., *119
Hultquist, G. T., *118
Hunter, P. R., *708-709
Huston, R. B., *316
Hüter, K. A., *583
Hutzler, Joel, *312

I

Iber, Frank L., *247
Iberall, A., *441
Idahl, Lars-Ake, *58, 509-516
Ide, Takehiko, 65-74, 75-83, *183
Idezuki, Yasuo, *316
Ikeda, Masaki, *182
Illig, R., *708
Imura, Hiroo, *182
Ingall, G., *788
Ireland, John T., *871
Irie, Minoru, *318
Irsigler, K., *311
Ishiwata, K., 820-827
Issekutz, Bela, Jr., *118-119

J

Jackson, Robert L., 206-211, *642, 679-685, *872
Jackson, W. P. U., *247, 499-501, 840-857
Jacobson, Mitchell, 523-528
Jacques, G., *247
Jahnke, K., *438
Jaim-Etcheverry, Guillermo, *247
Jarett, Leonard, 619-624
Jarrell, J. J., *706
Jarrett, John, *873
Jarrett, R. J., *187-188, *247, *705, *709
Jasani, Mukundrai K., *317
Jeffcoate, S. L., *182-183, *788
Jenkinson, I. S., *253
Joffe, B. I., 499-501
Johanson, Ann J., *579-580
Johansson, S., *58-59
Johnson, Charles, *58
Johnson, H. Keith, *247
Johnson, Robert D., 111-116
Jørgensen, Jørgen Ib. *313
Jorfeldt, Lennart, *786

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

Jorgensen, Kai R., *311
Joseph, P. K., *316

K

Kaden, Melvin, *642
Kadish, Arnold H., 467-471
Kajinuma, Hiroshi, 65-74, 84-95, *316-317, *502
Kalkhoff, R. K., 153-163, *787
Kalser, M. H., *183
Kammerer, L., *580
Kanazawa, Yasunori, 65-74, *183, *580-581
Kaneto, Akio, *316-317, *502
Kant, Kenneth J., *181
Kaplan, S. L., *502-503
Karam, John H., 445-454
Kater, Roderick M. H., *247
Kato, Yuzuru, *182
Kattermann, R., *56
Kaye, Beverly, 556-561
Kaye, Robert, 421-427, *640
Keane, P. M., *580
Keen, Harry, *187-188, *247, *580, *705, *709, *873
Keime, Mashimo, *441
Keiser-Nielsen, B., *712
Keller, P., 499-501
Kelley, Vincent C., *188
Kellock, M., *117
Kelsey, J., *708-709
Kemball, Margaret L., *60
Kennedy, Patricia J., *251
Kenny, Frederic M., *641-642
Kent, John R., *643
Kettl, H., *585
Keusch, Gerald T., *642
Kew, Michael C., 164-175
Khaw, Kon-Taik, *438
Khayat, M. H., *59
Kilo, Charles, 567-578
Kilsheimer, Grace S., *707
Kimmel, Joe R., *579, *580
King, M. N. R., *582
King, Suzanne, *119, *442
Kipnis, David M., *122, *502, 867-868, *870
Kirsten, Lidia, 598-605
Kitabchi, Abbas E., *580
Kjerulf, K., *640-641
Kline, N. S., *119
Kneubuhler, Hans A., 397-401
Knick, Bernard W., *873
Knoerding, Karsten, *182
Knopf, Ralph F., 523-528
Knowles, Harvey C., Jr., *439-440, 867-868
Koch, Gert, 428-433
Kohn, M., *119
Kohner, Eva M., 691-704
Koji, Nakagawa, *441
Kontras, Stella B., *119
Kosaka, Kinori, 65-74, 75-83, *316-317, 487-492, *580-581
Kozak, George P., *581
Krall, Leo P., *244, *872
Kramer, Robert, *583
Krebs, E. G., *316
Krebs, H. A., *125
Krees, Stephen V., *584-585
Kreisberg, R. A., 107-110
Krieger, D. T., *503
Krieger, H. P., *503
Kritchevsky, D., *183
Krüger, Ch., *60
Kumar, Vinod, 670-674
Kushner, B., 542-544
Kuzuya, Takeshi, 65-74, 75-83, *183, 487-492, *502, *580-581

L

Labram, C., *247
Lacey, A. H., 828-833
Lacron, Zvi, *247-248
Lacy, Paul E., *581
Landau, Bernard R., *248
Lange, Kurt, *584
Laraya-Cusay, L. R., *317
Lauer, Ronald M., *248
Lauritzen, E., 292-298
Lauweryns, J. M., *59
LeVeen, Harry H., *248
Lawrence, Ann M., 598-605
Lazarow, Arnold, 129-137, 589-597
Lazarus, Sydney S., 138-145
Lebovitz, Harold E., *58, 84-95, *186, *246, 529-537
Leclerc, Roland, *642
Leduc, Jean, *186-187
Lefebvre, P. J., *709
Legré, J., *709-710
Legum, Cyril P., *248
Leifson, June, *581
Leite, C. A., *183
Lemberg, A., *188
Leopold, I. H., 542-544
Lernmark, A., *59, *441
Leveille, Gilbert A., *503
Levin, B., *441
Levine, Rachmiel, *188, *584
Levy, Robert I., 739-747
Lewis, W. Frank, *710
Lieber, Arthur, *710
Lieberman, T. W., 542-544
Liebermeister, G., *185
Liebermeister, H., *438
Light, Claude, *579-580
Like, Arthur A., *642
Lillehei, Richard C., *316
Lillenstein, Mark, 164-175
Limbeck, George A., *188
Lin, B., 828-833
Lindall, A. W., 129-137
Lindsten, J., *119
Littledike, E. Travis, *183-184
Littlefield, John W., 545-549
Lloyd, June K., *441
Lockwood, Dean H., 755-758
Logothetopoulos, J., 606-611
Longmore, William J., *248
Lopez, Nestor, 733-738
Loridan, Liliane, *185-186, *252
Loubatières, A., *442, *873
Love, A. H. G., *248
Lowrie, Edmond G., *787
Lowry, Oliver H., *184
Lowy, Clara, *188
Lozano-Castañeda, Oscar, *871
Luft, Rolf, *119, *581
Lum, Darlene M., *248
Luyckx, A. S., *709
Lynfield, Joshua, *312

M

Maca, R., *314
Maccario, Micheline, *503
Macchi, I. A., *503
Machlin, L., *502
Mackay, Ian, *318, *710
Mackay, J. S., *58
Mackenzie, C., *712
Mackrell, Dennis J., 724-732
Macmillan, Anne, *184
Madison, L. L., *504
Maggi, V., *581
Mahler, Richard J., *119, *503, 550-555
Maier, Jacqueline J., 232-237
Mako, Mary, *119-120, 517-522
Makulu, David R., 660-669
Malaisse, Willy J., *119, *184, *248-249, *442
Malaisse-Lagae, Francine, *119, *184, *248-249, *442
Malins, J. M., 858-866
Mancini, A. M., *788-789
Mandelstam, Paul, *710
Manzano, Francisco, *581
Marble, Alexander, *117, *244
Marco, J., *582
Marcoux, Jean, *642
Mariani, M. M., *442
Marine, N., *247, 840-857
Mariz, Ida K., 619-624
Marmion, V. J., 285-291
Marshall, J., *246
Martin, F. I. R., *318
Martin, Julio M., 225-231, 392-396, *705, 828-833
Martini, P.-F., *59
Mascarinas, Thelma, *248
Mashiter, K., *582
Mautalen, Carlos A., *184
Mayne, N., 858-866
Mazurkiewicz-Rozynska, E., *440
McDonald, Glen W., *710, *872
McGraw, Edward F., *184
McKean, Harlley, *184
McKeel, Daniel W., 612-624
McKiddie, Margaret T., *317
McKusick, Victor A., *185, *249-250
McLane, Mary Frances, *180, *314
McLean, Patricia, *124

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

McNally, E. F., *642
McWilliams, C., *119
Meade, Robert C., 397-401
Meadow, S. R., *582
Meakin, J. W., *705
Meek, Joseph C., *585
Mehlman, Myron A., *249
Mehnert, H., *582
Mehrotra, B. K., *59
Melani, F., *582
Mellinger, Raymond C., *184
Mercola, Daniel, 193-205
Merimee, Thomas J., *185, *249-250, *641, 755-758
Messina, A., *440
Metz, Robert, *119-120, 517-522
Meulepas, E., *579
Mialhe, Pierre, *252
Midtgaard, K., *640-641
Mignon, Claude J., *579-580
Miki, Eishi, 733-780
Miller, Louis H., *642
Miller, Max, 33-37, 471-477
Milner, R. D. G., *315
Milunsky, A., *786
Mintz, David H., *317
Mitzuno, M., *585
Modica, A., *59
Montague, W., *250
Moody, A. J., *788
Morgan, Alan, *244
Morgan, Carl R., *120, *250
Morimoto, Masachika, *182
Morley, Nina H., 828-833
Mortimer, Patricia E., *441
Mortimore, Glenn E., *181-182
Mouratoff, George J., 29-32
Moyer, Arthur N., *125
Mukhopadhyay, D., *121
Muller, F., *125
Munskee, K., *442, *583
Murray-Lyon, I. M., *250-251
Murthy, D. Y. N., *642, 679-685
Muting, Dieter, *642-643

N

Nabarro, J. D. N., *789
Nafz, Mary Ann, 176-178
Nakanishi, Richard H., *584
Nakao, Kiku, *316-317, *502, 773-780
Narduzzi, J. V., *245
Nathanielsz, P. W., 625-626
Needleman, Philip, *184
Neel, James V., *869
Nelson, J. K., *710
Neville, R. W. J., *708
Newman, H. A. I., *251
Newman, P. R., *705
Newsholme, E. A., *186
Nice, Marvin, *119-120
Nielsen, Aa.V., 292-298, *712
Nielsen, P., *712
Nitowsky, Harold M., *248
Nixon, D. A., *707
Nonaka, Kyohei, *643
Nordén, A., *502
Northcutt, Robert C., *313

O

Oakes, David D., *710
Oakley, Nigel W., *642, *789
Oakley, Wilfred G., 54-55
Oberdisse, K., *182, *438
O'Connor, Thomas P., *251
Oglesby, Paul, *184
Ohneda, Akira, 1-10, *504
Okuno, Giichi, *643
Olderwurtel, Henry A., *245
Oliver, Thomas K., Jr., *179-180
Olsen, V. Vestergaard, *643
Olsen, Ward, *504
Oppenheim, D., 493-498
Oppermann, Werner, *584
Orö, L., *244
Orskov, Hans, 653-659
Östman, J., *244
Ostrander, Leon D., Jr., *872
O'Sullivan, John B., *872
Ott, John E., *710-711
Owen, Charles A., Jr., *579

P

Page, Lyman A., *180
Page, Susan, 381-386
Pallotta, Johanna A., *251
Pantlitschko, M., *123
Panzram, G., *120
Parada, Eugenio, *504
Park, C. R., *708
Parsons, J. A., *245
Passonneau, Janet V., *184
Paterson, Peter, *120
Path, F. C., 633-640
Patrick, R. S., *442
Patterson, P. R., *120
Patz, Arnall, *253
Paulsen, Elsa P., *643
Pavel, I., *582
Pavle, Paul, *118-119
Peake, Glenn T., 619-624
Pearson, J., *580
Pearson, M. J., *249
Pedersen, L. Molsted, *871
Pek, Sumer, 111-116
Penhos, Juan C., *188, 733-738
Pernow, Bengt, *786
Pertzelan, Athalia, *247-248
Petersson, B., *60
Pfeiffer, E. F., *187, *317, *582
Phaure, T. A. J., *313
Phillips, Lyn, *120
Piancino, G., *59
Picard, Claude, *249
Piccone, Vincent A., Jr., *248
Pieptea, R., *582
Pierce, Charles E., *180-181
Piétri, H., *709-710
Pihl, Erik, *56-57, *60
Pildes, Rosita S., *251
Pi-Sunyer, F. Xavier, 96-100
Plotz, E. J., *120
Pollock, H. Gail, *579, *580
Polman, H. A., *118
Popick, Bernard, *251
Porte, Daniel, Jr., *438, 759-772
Porter, Henrik P., *180
Porter, R., *708-709
Potter, William Z., 538-541
Power, Lawrence, *317
Powers, K. L., 455-458
Pratt, J. Howard, 556-561
Preeyasombat, Chawalit, *641-642
Price, H. V., *711
Promadhat, Varuni, *642
Proschek, H., *56
Pryor, J. S., *786
Pusen, A. F., *245

Q

Quabbe, H. J., *582
Quarterman, J., *711

R

Rabinowitz, David, *185, *249-250, *641
Rabkin, Mitchell T., *316
Racela, Antonio S., *248
Raff, Martin C., *120-121
Raiha, Niels, 409-416
Ramos, Angeles, *186-187
Randle, P. J., *786
Rappaport, A. M., *184-185
Rappaport, R., *251-252
Raptis, S., *187, *317
Rastogi, K. Sudha, 828-833
Rathé, J., *59
Reaven, Gerald M., *181, 273-279, *584
Reddy, Vinodini, *438
Reerink, J. D., *118
Regan, Timothy J., *245
Reichstein, W., *582
Reid, K. B. M., *314-315, *708
Reid, R. W., *180
Reinhard, A. E., *642
Reinheimer, Wilma, *252
Reitano, G., *440
Renaud, S., *185
Rennert, O. M., *121
Renold, Albert E., *583-584, *869
Rettemnier, Sara C., *119
Reyes, R., *712
Ribes, G., *442
Richardson, B. L., 153-163
Ricketts, Henry T., 867-868
Riggi, S. J., 612-618
Riggilo, D. A., *501
Rigolosi, Robert S., *121

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

Rimoin, David L., *121, *185, *249-250
Rinard, Gilbert A., *643
Rind, H., *440
Ringsdorf, W. M., Jr., *122, *180
Rishi, Surendra, 268-272
Robbers, H., *60
Robbins, T. J., *245
Robinson, Arthur, *710-711
Robison, G. Alan, 797-819
Rodbell, Martin, *707
Rodgers, D., *712
Rodriguez, Ricardo R., 417-420
Roger, M., *57
Root, Allen W., *582, *640
Rosell Perez, M., *117-118
Ross, I., *712
Rosselin, G., *442
Rossen, Ronald M., *711
Rott, W. H., *582
Royer, P., *251
Rubenstein, Arthur H., *185, *188, 598-605
Rubin, Harvey M., *583
Rudas, B., *711
Rudman, Daniel, *60, *181
Rüenauver, R., *438

S

Sabeh, G., *245
Sachsse, B., *711
Sadoff, Leonard, 675-678
Saenz-Rodriguez, Carmen, *582-583
Saiki, John H., *121
Saito, Reiko, 487-492
Sakamoto, N., *585
Sakuma, Maki, *318
Sallata, P., *183
Salway, J. G., *711
Samols, Ellis, *252, *318
Sanbar, Shafeek S., 101-106
Sandberg, Herschel, *439, *641
Saporito, N., *440
Sardo, G. Lo, *185
Sarver, M. E., *245
Saxe, L. H., *706
Schatz, L., 499-501
Schilling, W. H., *438, *583
Schlichtkrull, J., *121-122
Schmitt, H., *185
Schnatz, J. David, *251
Schochat, Gina, *186
Schollmeyer, P., *441
Schonfeld, Gustav, *122
Schreibman, Paul H., 562-566, *710
Schröder, K. E., *187, *317
Schulte, William J., 397-401
Schultz, G., *442, *583
Schwachman, Harry, *438
Schwartz, A., 493-498
Schwartz, Ernest, *121
Schwartz, P. E., *642
Schwartz, P. L., 280-284
Schwartz, Robert, *244, 409-416
Schwarz, K., *707-708
Sciarra, J. J., *502-503
Scott, A. M., *117
Scott, Edward M., 29-32
Seegmiller, J. Edwin, 755-758
Seftel, Harold C., 164-175
Seidman, Frances, *122-123
Seltzer, Holbrooke S., 19-28, *870
Semple, R., 706
Sender, Joseph, 478-486
Senft, G., *442, *583
Senior, Boris, *185-186, *252
Setyaadmadja, A. T. S. H., *122, *180
Sevier, B. R., *124-125
Sewering, H., *582
Shaffer, Thomas, *119
Shah, Narendra, 268-272
Sheehan, Angela, *123-124
Sheikholislam, Bagher M., *186
Sheridan, B., *58, *710
Shima, Kenji, *789
Shimano, E., *119
Shizume, Kazuo, *318
Shuey, E. W., 206-211
Shuman, Charles R., *252
Sibley, G. T., *180
Siegel, Charles I., *710
Siegel, Maureen, *710
Siegelaub, A. B., 478-486
Silverberg, A., *503
Silvers, Abraham, *584
Simenhoff, M., *441
Simon, Gilbert, *188
Simpson, W. J. K., *705
Singh, Inder, *252
Siperstein, Marvin D., *504, *871
Skovborg, F., 292-298
Smith, Richmond W., Jr., *184
Snyder, R. D., *244
Sodero, E. C., *188
Sodoyez, Jean-Claude, *643, *709, *711
Sodoyez-Goffaux, Francoise, *643, *711
Soeldner, J. Stuart, *60, *117, *188, *316, *871
Sokal, Joseph E., 724-732
Soler, N. G., *789
Soling, H.-D., *56, 585
Solomon, Solomon S., *122, *180
Solvsteen, P., *643
Sorenson, R. L., 129-137
Spahn, James, *250
Speiser, Peter, *253
Spenney, J. G., 107-110
Spitz, I. M., *188
Srivastava, M. C., *252
Stachenfeld, Robert, *705
Stamp, T. C. B., 633-640
Starr, Jerome I., 111-116
Start, Carole, *186
Starup, J., *317-318
Stauffacher, Werner, *583-584
Stearns, H., *119
Stein, Harry, *122-123
Stein, J. M., *712
Steinberg, Arthur, *869
Steiner, Donald F., *185, 598-605
Steiner, G., *122
Steinke, Jurgen, *314
Stempfel, Robert S., Jr., *186
Stephenson, Nuala, *439
Stern, Leo, *186-187
Stern, Michael P., *584
Sternberg, James C., 467-471
Stewart, G. A., *708
Stewart, W. K., *706
Stimmler, L., *582, *870
Stirewalt, William S., *125
Stocks, A. E., *249, *318
Stokes, H., *585
Stoll, Ralph W., 392-396
Storvick, W. O., 828-833
Stout, R. W., *187, *253
Stowers, J. M., *712
Strack, Inge, *502
Strautz, R. L., *253
Ströder, W., *707-708
Strohfeldt, P., *60
Subrahmanyam, K., *316
Summers, R. O. C., *711, *789
Suryanarayana, B. V., *643
Sussman, Karl E., 660-669
Sutherland, Earl W., 797-819
Sutherland, H., *712
Sutter, B. C. J., *187
Swell, Leon, *311
Swift, Charles R., *122
Szabo, Andrew John, 232-237
Szabo, Olga, *119, 232-237, *503, 550-555

T

Täljedal, I-B, *123
Takahashi, Kiyohisa, *318
Takahashi, Saburo, *318
Tardings, F., *712
Taylor, Andrew L., *317
Taylor, K. W., *250
Tchobroutsky, G., *442
Telib, M., *187
Tepper, S. A., *183
Teramo, Kari, 409-416
Tevaarwerk, Gerald J. M., 51-53
Thaler, H., *311
Thalhammer, O., *123
Theodoridis, C., *706-707
Tiernan, J., *60
Tobon, Fabio, *247
Totten, Robert S., *181
Track, N. S., *187-188, *580
Treser, Gerhard, *584
Troncale, Frank J., *642
Trubow, Marshall, *789
Tsukamoto, Fusae, 487-492
Tsushima, Toshio, *318
Turner, R. C., *789
Tutin, M., *57
Tyce, Gertrude M., *579
Tyler, Jean M., *252
Tyson, John E. A., *185
Tzagournis, Manuel, *246

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876

U

Ungar, Berta, *318
Unger, Roger H., 1-10, *504, 717-723, *870

V

Vallance-Owen, J., *580
Vance, James E., 11-18, *180, *244, 381-386, *580, *640
Vandermeers, A., *59
Van Itallie, Theodore B., 96-100
Varandani, P. T., 176-178
Vargas-Cordon, Mario, 262-267
Velasco, Mutya S. A., *643
Veverbrants, Egils, *179, *504
Vichick, Diana, 660-669
Viktora, Josef K., *584-585
Vinik, A. I., *247, 499-501, 840-857
Vogler, Nancy J., 567-578
Vogt, H., *582
Volk, Bruno W., 138-145
Vranic, M., *184-185, 820-827
Vrba, R., *123-124

W

Wahren, John, *786
Walaas, E., *584
Waldhäusl, W., *711
Wales, John K., *584-585
Walker, F., *442
Walker, W. H. C., *580
Wallace, Thomas W., *312
Walsh, Sandra A., *125
Walter, Paul, *249
Walters, Eileen, *124
Warner, Richard, *251
Warren, W. D., *183
Waterhouse, Christine, *247
Watkins, P. J., *60, *711
Weaver, J. A., *58
Weber, Bruno, *124
Weinges, K. F., *585
Weisse, Allen B., *245
Wellmann, Klaus F., 138-145
Wettenhall, R. E. H., 280-284
Whang, Robert, *124, *712
Wheelock, Frank C., 428-433
Whelton, M. J., *318
Whichelow, M. J., *312, *786-787
Whipp, Shannon C., *183
Whistler, Roy L., *441
Whitney, J. E., *124-125
Whittingham, Senga, *318
Whitty, Albert J., *789
Wick, A. N., *584
Wiesman, Harold J., *120
Wilansky, Douglas L., *186
Wilkinson, A. W., *181
Willes, R. F., *585
Willi, H., *125
Williams, Hollis R., *248
Williams, H. S., *318
Williams, J., *706-707
Williams, R. F., *188
Williams, Robert H., 11-18, *122, *125, *180, 216-224, *244, 381-386, 392-396, *580, *640
Williams, Roger, *250-251
Williamson, D. H., *125
Williamson, Joseph R., 567-578
Willms, B., *585
Wilson, Dana E., 562-566
Wilson, P. D., *581
Wilson, Robert B., 225-231
Wilson, W. M., *706
Witzel, Donald A., *183-184
Wohlgemuth, Dieter, *642-643
Wolfe, Richard, *317
Wolff, Frederick W., *584-585, 733-738
Wöllner, H., *120
Wolters, V., *585
Womack, W. N., *642, 679-685
Wood, Carl, *120
Wool, Ira G., *125
Wouters, A., 499-501
Wrenshall, G. A., *184
Wright, A. D., *188
Wright, Peter H., *119, 660-669
Wu, C. H., *188
Wu, Ching-Hui, 733-738
Wünsch, E., *585
Wynn, Victor, *313, 633-640
Wyse, Beatrice M., 459-466, *641

Y

Yalow, Rosalyn S., 402-408, 834-839, *869-870
Yawata, Mikio, *182
Yazdanfar, A., *711
Yodaiken, Ralph E., 164-175
Yoshihiko, Horiuchi, *441
Young, D. A. B., *253
Young, Donald A., *581
Young, J. D., *253
Yu, Pao-Lo, 660-669

Z

Zaharko, Daniel S., 542-544, *585
Zahradnik, John M., *585
Zampa, G. A., *788
Zangeneh, Fereydoun, *188
Zeigler, Marcia, 212-215
Zieher, Luis María, *247
Zilversmit, D. B., *251
Zucker, Preston, *188
Zweens, J., *253

DIABETES: VOLUME 18 (1969) PAGE NUMBERS BY ISSUE

January, 1-64
February, 65-128
March, 129-192
April, 193-256
May, 257-320
Annual Meeting Supplement, 321-380
June, 381-444
July, 445-508
August, 509-588
September, 589-652
October, 653-716
November, 717-796
December, 797-876